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A Comparison of The Ninth-Grade Boys of Haverhill Trade-
School and Haverhill High School From The Standpoint
of Intelligence Quotients, Basic Study Skills, School
Achievement Scores, and Family Background.

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Submitted by

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In partial fulfillment of requirements for
the degree of Master of Education

1949

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CHAPTER I

PURPOSES AND PLAN OF THE STUDY

The purposes of the study. The purposes of this study are: (1) to show why the ninth-grade boys entered the trade-school, and (2) to show and compare the following characteristics of the ninth-grade boys of the Haverhill Trade-School and the Haverhill High-School: intelligence; subject achievement; basic study skills; size of family; musical instruments played; and occupations of the fathers.

Situation. Haverhill has 20 small elementary schools for students in grades one through eight. When a boy completes grade eight, he must decide whether he is to go to the high-school or to the trade-school.

The high-school courses of study are as follows: college preparatory; scientific; commercial; civic arts.

The trade-school has a one-year general vocational course for all students. This course consists of the following subjects taught every other week during the school year: English; civics; shop mathematics; science; mechanical drawing. The weeks not spent in class work, every other week are spent in the following shops: machine shop; welding; auto repair.

After this one year the boys choose, with guidance, a

trade course in which they specialize for three years. The trades offered are: carpentry; sheet metal; machine shop; plumbing; electricity; auto repair; welding; and upholstery. Each trade course includes related mathematics, science, and shop work. Every trade-school student, in order to graduate, must pass three years of academic English and one year of American History as well as the trade subjects.

The plan of the study. The writer proposes to give a case study of each of fifty ninth-grade students from each school.

Each trade-school case study will give the student's reasons for attending the trade-school as shown on a questionnaire filled out by him.

If the student is no longer attending the trade-school, this will be shown on the case study and the reason for his leaving the school will be given.

Each case study in both the high-school and the trade-school groups will include the student's birth date to show the relative ages of the students. The intelligence quotients given will show the native ability of the two groups of students. The Iowa Basic Skills Test results will indicate relative achievement of the groups in study skills; the Metropolitan Achievement Test scores, the subject matter achievement of each group. The number of musical instruments played will show musical interest. The father's occupation will show the financial status of the family; the number of brothers and sisters

will give the size of the family.

These scores will be averaged for each school group, the standard deviation computed, relative growth scales constructed, and comparative graphs of each item of information constructed to show comparative relationships between the students of the two schools.

After the data have been organized, an evaluation of these facts will be made and the conclusions will be presented.

Sources of information. Information for the trade-school case studies was obtained from the trade-school registration cards for the school year 1946-1947; standardized test records of tests taken in grade eight, year 1945-1946, the ninth month; and a student questionnaire.

Information for the high-school case studies was obtained from a high-school student inventory sheet filled out by all ninth-grade high-school students when they enter the ninth grade; standardized test records of tests taken in grade eight, year 1945-1946, the ninth month; and transfer cards of the students.

CHAPTER II

CASE STUDIES OF FIFTY TRADE-SCHOOL NINTH-GRADE BOYS

Introduction. Information about these fifty trade-school, ninth-grade boys, selected at random, was secured from school standardized test records, registration cards, and a questionnaire asking why the students came to the trade-school.

Selection of students. One hundred twenty students were in the ninth-grade class. As far as complete records permitted, every other student was chosen for this study.

Standardized tests used. The standardized tests used were: (1) Iowa Basic Skills, (2) Metropolitan Achievement Test, (3) Kuhlmann-Anderson Intelligence Test.

These tests were given the ninth month of the eighth grade of school.

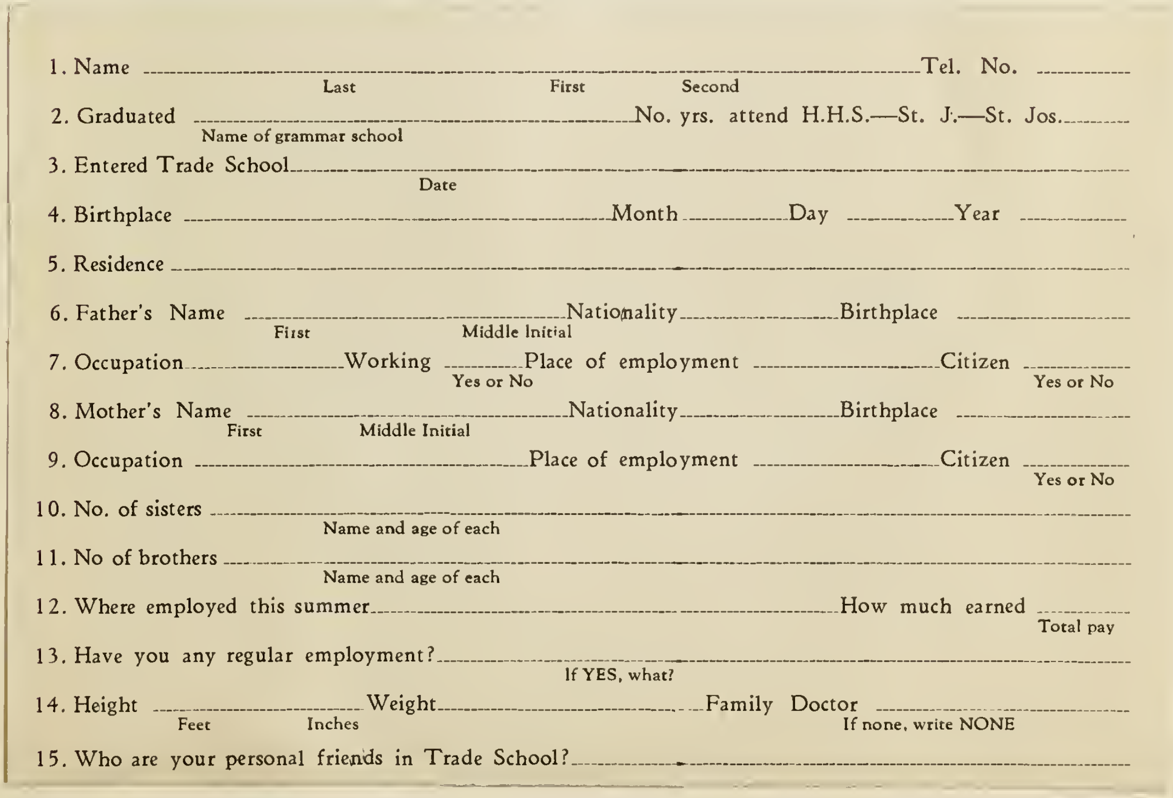
Questionnaire used. The questionnaire used is as follows:

> Why did you come to trade-school instead of the high-school?
>
> Mr. Knox would like the answer to this question for a study he is making.
>
> What you write will have no effect upon your marks. Your name will not be used in the study and will not be published.
>
> The success of this study depends upon your being very frank and honest in your answers.
>
> The phrases below are suggestions. They need not be used if you have other reasons.
>
> Check those which apply; write any other reasons in the spaces provided.
>
> _____Father wanted me to go to trade-school.
> _____Mother wanted me to go to trade-school.

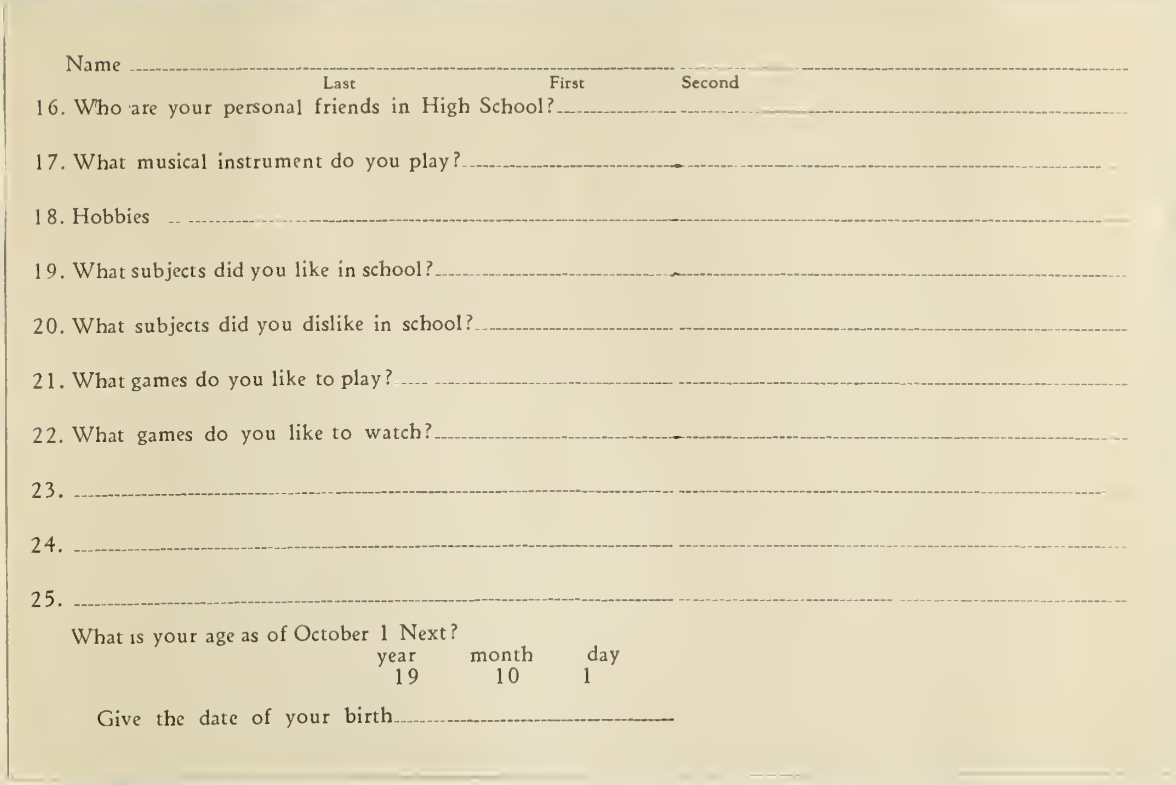
_____My grade school principal said I should go.
_____My brother went to trade-school, and so I wanted to.
_____My eighth grade teacher said I should go to trade-school.
_____I like to work with my hands.
_____I thought I could get a good job after I graduated.
Other reasons:

This questionnaire was given the second month of the eleventh grade of school.

Trade-school registration card. The trade-school registration card is filled in by each student upon entering trade-school in the fall. It consists of the following four inches by six inches card:



1. Name ______ Last ______ First ______ Second ______ Tel. No. ______
2. Graduated ______ Name of grammar school ______ No. yrs. attend H.H.S.—St. J.—St. Jos. ______
3. Entered Trade School ______ Date ______
4. Birthplace ______ Month ______ Day ______ Year ______
5. Residence ______
6. Father's Name ______ First ______ Middle Initial ______ Nationality ______ Birthplace ______
7. Occupation ______ Working ______ Yes or No ______ Place of employment ______ Citizen ______ Yes or No
8. Mother's Name ______ First ______ Middle Initial ______ Nationality ______ Birthplace ______
9. Occupation ______ Place of employment ______ Citizen ______ Yes or No
10. No. of sisters ______ Name and age of each
11. No of brothers ______ Name and age of each
12. Where employed this summer ______ How much earned ______ Total pay
13. Have you any regular employment? ______ If YES, what?
14. Height ______ Feet ______ Inches ______ Weight ______ Family Doctor ______ If none, write NONE
15. Who are your personal friends in Trade School? ______



Name ______________________________
Last First Second

16. Who are your personal friends in High School? ______________________________

17. What musical instrument do you play? ______________________________

18. Hobbies ______________________________

19. What subjects did you like in school? ______________________________

20. What subjects did you dislike in school? ______________________________

21. What games do you like to play? ______________________________

22. What games do you like to watch? ______________________________

23. ______________________________

24. ______________________________

25. ______________________________

What is your age as of October 1 Next?

year	month	day
19	10	1

Give the date of your birth ______________________________

Case Study Number One. Pupil one was born in January, 1932, and he has four siblings. His hobby is horse back riding, and he plays no musical instrument. His father works in a shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			86
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	6	9	
Use of index	5	9	
Use of dictionary . . .	7	7	
Reading graphs	7	6	
Total	7	0	
Metropolitan Achievement Test:			
Reading	7	3	
Vocabulary	7	4	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	7	5	
English usage	8	0	
Literature	8	6	
History	9	3	
Geography	7	7	
Spelling	7	7	
Total	7	9	

Pupil one left school for economic reasons on January 7, 1948. He did not answer the questionnaire.

Case Study Number Two. Pupil two was born in September, 1930, and he has four siblings. His hobby is swimming, and he plays no musical instrument. His father is a laborer.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			84
Iowa Basic Skills Test:			
Map reading	6	8	
Use of references . . .	4	2	
Use of index	3	0	
Use of dictionary . . .	4	1	
Reading graphs	7	2	
Total	4	9	
Metropolitan Achievement Test:			
Reading	5	3	
Vocabulary	6	4	
Arithmetic fundamentals	6	9	
Arithmetic problems . .	7	4	
English usage	7	2	
Literature	7	3	
History	7	4	
Geography	7	2	
Spelling	6	0	
Total	6	8	

Pupil two did not report for school in September 1946. He did not answer the questionnaire.

Case Study Number Three. Pupil three was born in August, 1931, and has two siblings. His hobbies are art and boxing, and he plays no musical instrument. His father is an ordinance worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test			87
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	6	9	
Use of index	9	3	
Use of dictionary . . .	7	1	
Reading graphs	7	6	
Total	7	9	
Metropolitan Achievement Test:			
Reading	7	4	
Vocabulary	7	6	
Arithmetic fundamentals	8	3	
Arithmetic problems . .	8	4	
English usage	8	6	
Literature	7	5	
History	7	5	
Geography	7	7	
Spelling	8	4	
Total	7	9	

Pupil three left school in October, 1946. He was a truant; the police and his mother did not know where he was at the time. He did not answer the questionnaire.

Case Study Number Four. Pupil four was born in January, 1931, and he has four siblings. His hobby is fishing, and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			97
Iowa Basic Skills Test:			
Map reading	9	7	
Use of references . . .	7	7	
Use of index	7	1	
Use of dictionary . . .	7	7	
Reading graphs	6	4	
Total	7	6	
Metropolitan Achievement Test:			
Reading	8	1	
Vocabulary	7	9	
Arithmetic fundamentals	8	1	
Arithmetic problems . .	7	7	
English usage	8	5	
Literature	8	5	
History	9	9	
Geography	8	9	
Spelling	9	5	
Total	8	6	

Pupil four transferred to an out of town school May 14, 1947. He did not answer the questionnaire.

Case Study Number Five. Pupil five was born in September, 1931. His hobby is sports, and he plays no musical instrument. His father is an elevator operator.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			92
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	6	9	
Use of index	9	3	
Use of dictionary . . .	7	7	
Reading graphs	6	0	
Total	7	7	
Metropolitan Achievement Test:			
Reading	8	3	
Vocabulary	6	9	
Arithmetic fundamentals	6	7	
Arithmetic problems . .	6	4	
English usage	7	8	
Literature	8	2	
History	8	5	
Geography	8	0	
Spelling	7	8	
Total	7	6	

Pupil five did not report for school in September, 1947. He did not answer the questionnaire.

Case Study Number Six. Pupil six was born in November, 1930, and he has four siblings. His hobby is woodsmanship, and he plays no musical instrument. His father is a wholesaler.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			86
Iowa Basic Skills Test:			
Map reading	7	4	
Use of references . . .	4	2	
Use of index	6	6	
Use of dictionary . . .	8	1	
Reading graphs	7	2	
Total	6	7	
Metropolitan Achievement Test:			
Reading	8	0	
Vocabulary	6	5	
Arithmetic fundamentals	6	8	
Arithmetic problems . .	6	9	
English usage	7	7	
Literature	7	4	
History	7	4	
Geography	8	0	
Spelling	5	3	
Total	7	1	

Pupil six was asked to leave school April 9, 1948, because of his poor record. He did not answer the questionnaire.

Case Study Number Seven. Pupil seven was born in February, 1933, and he has five siblings. His hobbies are hunting and fishing, and he plays no musical instrument.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			120
Iowa Basic Skills Test:			
Map reading	9	7	
Use of references . . .	6	2	
Use of index	7	9	
Use of dictionary . . .	8	4	
Reading graphs	7	9	
Total	7	7	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	7	8	
Arithmetic fundamentals	9	3	
Arithmetic problems . .	9	3	
English usage	8	8	
Literature	8	6	
History	9	0	
Geography	10	3	
Spelling	9	0	
Total	9	0	

Pupil seven marked "yes" the following items on the questionnaire:

Father wanted me to go to trade-school.

Mother wanted me to go to trade-school.

My brother went to trade-school, and so I wanted to.

I like to work with my hands.

I thought I could get a good job after I graduated.

Case Study Number Eight. Pupil eight was born in August, 1931, and he has seven siblings. His hobby is building model planes and boats, and he plays no musical instrument. His father is a machinist.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			87
Iowa Basic Skills Test:			
Map reading	6	8	
Use of references . . .	6	9	
Use of index	4	4	
Use of dictionary . . .	6	6	
Reading graphs	7	2	
Total	6	4	
Metropolitan Achievement Test:			
Reading	6	9	
Vocabulary	6	9	
Arithmetic fundamentals	8	0	
Arithmetic problems . .	9	2	
English usage	7	2	
Literature	8	2	
History	8	4	
Geography	7	9	
Spelling	7	6	
Total	7	8	

Pupil eight left school on September 30, 1947. No reason was given.

He answered the questionnaire with the following:

"I like to work with my hands. I thought I could get a good job after I graduated.

"When I was in trade-school, I liked my freshman year and the shops I had.

"In my second year, I took auto repair and didn't like it

because I was wasting my time and the teacher's time by learning from books. I would have learned much better with my hands on an auto than on a book."

Case Study Number Nine. Pupil nine was born in March, 1933, and he has two siblings. His hobby is model building, and he plays the trombone. His father is a contractor.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			104
Iowa Basic Skills Test:			
Map reading	5	4	
Use of references . . .	6	9	
Use of index	7	9	
Use of dictionary . . .	7	1	
Reading graphs	6	0	
Total	6	6	
Metropolitan Achievement Test:			
Reading	8	4	
Vocabulary	8	3	
Arithmetic fundamentals	6	4	
Arithmetic problems . .	6	2	
English usage	7	9	
Literature	9	2	
History	9	6	
Geography	9	7	
Spelling	7	3	
Total	8	1	

Pupil nine checked the following item on the questionnaire: "I came to trade-school because I thought I could get a good job after I graduated."

Case Study Number Ten. Pupil ten was born in May, 1930, and has no siblings. His father is a truck driver.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			86
Iowa Basic Skills Test:			
Map reading	4	0	
Use of references . . .	6	2	
Use of index	6	6	
Use of dictionary . . .	7	7	
Reading graphs	6	8	
Total	6	0	
Metropolitan Achievement Test:			
Reading	8	1	
Vocabulary	8	5	
Arithmetic fundamentals	6	7	
Arithmetic problems . .	6	4	
English usage	8	2	
Literature	9	3	
History	8	9	
Geography	8	4	
Spelling	7	2	
Total	8	0	

Pupil ten did not answer the questionnaire. He chose to go to trade-school from grade eight but did not report for school in September.

Case Study Number Eleven. Pupil eleven was born in November, 1930, and he has eight siblings. His hobby is horse back riding and he plays no musical instrument. His father is a laborer.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			92
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	8	4	
Use of index	9	1	
Use of dictionary . . .	9	9	
Reading of graphs . . .	8	3	
Total	8	9	
Metropolitan Achievement Test:			
Reading	10	2	
Vocabulary	8	7	
Arithmetic fundamentals	7	8	
Arithmetic problems . .	9	3	
English usage	8	1	
Literature	10	0	
History	9	9	
Geography	9	7	
Spelling	7	9	
Total	9	1	

Pupil eleven did not answer the questionnaire. He left school to work, December 25, 1946.

Case Study Number Twelve. Pupil twelve was born in August, 1931, and he has four siblings. He has no hobby and plays no musical instrument. His father is a truck driver.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			100
Iowa Basic Skills Test:			
Map reading	4	3	
Use of references . . .	5	5	
Use of index	5	9	
Use of dictionary . . .	9	9	
Reading graphs	10	3	
Total	7	4	
Metropolitan Achievement Test:			
Reading	8	1	
Vocabulary	6	6	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	8	0	
English usage	7	4	
Literature	7	2	
History	7	3	
Geography	7	2	
Spelling	7	0	
Total	7	4	

Pupil twelve did not answer the questionnaire. He left school November 25, 1947, for disciplinary reasons.

Case Study Number Thirteen. Pupil thirteen was born in March, 1931, and has seven siblings. His hobby is raising animals, and he plays no musical instrument. He is an orphan.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			80
Iowa Basic Skills Test:			
Map reading	5	4	
Use of references . . .	7	7	
Use of index	4	4	
Use of dictionary . . .	5	9	
Reading graphs	6	4	
Total	5	7	
Metropolitan Achievement Test:			
Reading	8	8	
Vocabulary	7	3	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	7	5	
English usage	7	8	
Literature	7	0	
History	7	8	
Geography	7	8	
Spelling	8	6	
Total	7	8	

Pupil thirteen left school March 8, 1948; his plans were uncertain. He did not answer the questionnaire.

Case Study Number Fourteen. Pupil fourteen was born in August, 1932, and he has nine siblings. His hobby is sports, and he plays no musical instrument. His father is a carpenter.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test			117
Iowa Basic Skills Test:			
Map reading	7	4	
Use of references . . .	4	2	
Use of index	6	6	
Use of dictionary . . .	8	8	
Reading graphs	6	0	
Total	6	6	
Metropolitan Achievement Test:			
Reading	8	4	
Vocabulary	8	1	
Arithmetic fundamentals	7	0	
Arithmetic problems	7	4	
English usage	8	6	
Literature	8	6	
History	8	7	
Geography	9	4	
Spelling	7	9	
Total	8	2	

Pupil fourteen did not report for school September 8, 1948. He did not answer the questionnaire.

Case Study Number Fifteen. Pupil fifteen was born in February, 1932, and has four siblings. His hobby is wood working, and he plays no musical instrument. His father is a mechanic.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			100
Iowa Basic Skills Test:			
Map reading	9	3	
Use of references . . .	9	7	
Use of index	9	3	
Use of dictionary . . .	8	8	
Reading graphs	11	1	
Total	9	4	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	8	0	
Arithmetic fundamentals	8	6	
Arithmetic problems . .	9	1	
English usage	7	8	
Literature	8	1	
History	9	9	
Geography	9	7	
Spelling	6	5	
Total	8	5	

Pupil fifteen replied to the questionnaire:

"I came to trade-school because I like to work with my hands. I knew I couldn't go to college, so I thought I would be better off coming to trade-school."

Case Study Number Sixteen. Pupil sixteen was born in August, 1931, and he has two siblings. His hobby is football, and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			111
Iowa Basic Skills Test:			
Map reading	5	0	
Use of references . . .	4	7	
Use of index	6	6	
Use of dictionary . . .	5	6	
Reading graphs	7	2	
Total	5	7	
Metropolitan Achievement Test:			
Reading	8	4	
Vocabulary	6	2	
Arithmetic fundamentals	9	0	
Arithmetic problems . .	9	2	
English usage	8	8	
Literature	7	0	
History	7	7	
Geography	7	5	
Spelling	7	1	
Total	7	9	

Pupil sixteen replied to the questionnaire:

"I came to trade-school because I thought I could get a good job after I graduated. I don't like to stay in the house and study after I come home from high-school. That's why I didn't go to high-school. The hours in the trade-school don't bother me. When I get out of trade-school I'll have a trade to help me get a good job. I have something to back me up."

Case Study Number Seventeen. Pupil seventeen was born in June, 1931, and he has three siblings. His hobby is hunting, and he plays no musical instrument. His father is a truck driver.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			94
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	7	7	
Use of index	5	9	
Use of dictionary . . .	4	1	
Reading graphs	6	0	
Total	5	7	
Metropolitan Achievement Test:			
Reading	7	5	
Vocabulary	8	0	
Arithmetic fundamentals	7	8	
Arithmetic problems . .	7	5	
English usage	7	8	
Literature	7	1	
History	8	4	
Geography	8	4	
Spelling	6	7	
Total	7	7	

Pupil seventeen did not answer the questionnaire. He left school October 25, 1946, to go to an out of town school.

Case Study Number Eighteen. Pupil eighteen was born in December, 1931, and he has three siblings. His hobby is fishing, and he plays no musical instrument. His father is a carpenter.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			103
Iowa Basic Skills Test:			
Map reading	5	4	
Use of references . . .	5	5	
Use of index	5	9	
Use of dictionary . . .	10	4	
Reading graphs	7	2	
Total	7	1	
Metropolitan Achievement Test:			
Reading	8	0	
Vocabulary	7	0	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	6	9	
English usage	8	3	
Literature	7	3	
History	7	6	
Geography	7	2	
Spelling	7	8	
Total	7	5	

Pupil eighteen replied to the questionnaire:

"I came to trade-school because I like to work with my hands, and I thought I could get a good job after I graduated."

Case Study Number Nineteen. Pupil nineteen was born in January, 1931, and he has two siblings. His hobby is photography, and he plays no musical instrument. His father is a cabinet maker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			102
Iowa Basic Skills Test:			
Map reading	11	3	
Use of references . . .	8	4	
Use of index	9	6	
Use of dictionary . . .	9	4	
Reading graphs	8	7	
Total	9	7	
Metropolitan Achievement Test:			
Reading	9	5	
Vocabulary	8	8	
Arithmetic fundamentals	7	4	
Arithmetic problems . .	7	5	
English usage	8	2	
Literature	8	5	
History	8	5	
Geography	10	7	
Spelling	7	6	
Total	8	4	

Pupil nineteen left school to move to Texas, September 8, 1948. No address was given; no questionnaire could be mailed to him.

Case Study Number Twenty. Pupil twenty was born in January, 1930, and he has three siblings. His hobbies are sports and model planes, and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			90
Iowa Basic Skills Test:			
Map reading	7	4	
Use of references . . .	5	1	
Use of index	6	6	
Use of dictionary . . .	7	1	
Reading graphs	6	0	
Total	6	4	
Metropolitan Achievement Test:			
Reading	7	0	
Vocabulary	6	8	
Arithmetic fundamentals	7	8	
Arithmetic problems . .	8	0	
English usage	7	4	
Literature	7	1	
History	8	1	
Geography	7	8	
Spelling	5	5	
Total	7	3	

Pupil twenty left trade-school to go to the high-school September 1, 1947. He did not answer the questionnaire.

Case Study Number Twenty-one. Pupil twenty-one was born in February, 1931, and he has three siblings. His hobby is radios, and he plays the guitar. His father is a sheet metal worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			89
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	9	8	
Use of index	6	6	
Use of dictionary . . .	5	9	
Reading graphs	6	8	
Total	5	8	
Metropolitan Achievement Test:			
Reading	9	3	
Vocabulary	8	9	
Arithmetic fundamentals	8	4	
Arithmetic problems . .	8	5	
English usage	8	2	
Literature	7	6	
History	9	1	
Geography	8	9	
Spelling	8	9	
Total	8	7	

Pupil twenty-one answered the questionnaire:

"I went to trade-school because I like to work with my hands. I thought I could get a good job after I graduated. If a boy is not going to college I think he should go to trade-school because you at least have some experience in a special trade where in high-school you don't have any experience in any trade and you are liable to end up in a non-skilled job which does not insure you a steady employment."

Case Study Number Twenty-two. Pupil twenty-two was born in June, 1932, and he has five siblings. His hobby is horse back riding, and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			102
Iowa Basic Skills Test:			
Map reading	7	4	
Use of references . . .	6	9	
Use of index	10	2	
Use of dictionary . . .	9	4	
Reading graphs	9	7	
Total	9	1	
Metropolitan Achievement Test:			
Reading	10	8	
Vocabulary	10	5	
Arithmetic fundamentals	9	4	
Arithmetic problems . .	10	3	
English usage	9	7	
Literature	10	3	
History	11	5	
Geography	10	5	
Spelling	10	6	
Total	10	4	

Pupil twenty-two moved to an out of town school, April 28, 1947. No address was left; no questionnaire was sent.

Case Study Number Twenty-three. Pupil twenty-three was born in April,1932, and he has eight siblings. His hobby is sports and he plays the piano. His father is dead.

So far as test data are concerned, the following facts are available:

Source of Test data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			110
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references	4	2	
Use of index	5	5	
Use of dictionary	7	7	
Reading graphs	7	9	
Total	6	2	
Metropolitan Achievement Test:			
Reading	8	5	
Vocabulary	8	8	
Arithmetic fundamentals	6	5	
Arithmetic problems	7	5	
English usage	8	6	
Literature	8	6	
History	9	8	
Geography	8	9	
Spelling	9	2	
Total	8	5	

Pupil twenty-three answered the questionnaire:

"I came to trade-school because I like to work with my hands. I like the way they work in trade-school and I like to work on machines. Also, I couldn't stand to be penned up in the same place all day."

Case Study Number Twenty-four. Pupil twenty-four was born in February, 1931, and he has one sibling. His hobby is collecting army insignia, and he plays no musical instrument. His father is a "piper" at a box board mill.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			96
Iowa Basic Skills Test:			
Map reading	5	8	
Use of references . . .	8	4	
Use of index	8	4	
Use of dictionary . . .	7	1	
Reading graphs	8	7	
Total	7	7	
Metropolitan Achievement Test:			
Reading	8	3	
Vocabulary	8	9	
Arithmetic fundamentals	8	1	
Arithmetic problems . .	8	2	
English usage	7	7	
Literature	8	9	
History	8	3	
Geography	7	9	
Spelling	8	0	
Total	8	1	

Pupil twenty-four answered his questionnaire;

"I came to trade-school because I like to work with my hands and I thought I could get a good job after I graduated. My uncle took the same trade and had the same teacher."

Case Study Number Twenty-five. Pupil twenty-five was born in January, 1932, and he has five siblings. He has no hobby and he plays no musical instrument. His father is a carpenter.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			103
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	6	2	
Use of index	6	6	
Use of dictionary . . .	7	1	
Reading graphs	6	8	
Total	7	2	
Metropolitan Achievement Test:			
Reading	7	8	
Vocabulary	7	5	
Arithmetic fundamentals	8	1	
Arithmetic problems . .	7	7	
English usage	8	0	
Literature	7	8	
History	8	3	
Geography	8	0	
Spelling	6	8	
Total	7	8	

Pupil twenty-five answered the questionnaire:

"My mother wanted me to go to high-school, but I thought that I would do better in trade-school. This year I had a chance to go to a school in New Hampshire but I was afraid that I would not be smart enough, for this school is a prep school for New Hampshire University."

Case Study Number Twenty-six. Pupil twenty-six was born in May, 1932, and has three siblings. His hobby is sports and he plays no musical instrument. His father is a painter.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			122
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	8	9	
Use of index	9	1	
Use of dictionary . . .	9	4	
Reading graphs	9	4	
Total	9	1	
Metropolitan Achievement Test:			
Reading	9	0	
Vocabulary	9	0	
Arithmetic fundamentals	9	9	
Arithmetic problems . .	9	0	
English usage	9	1	
Literature	9	3	
History	9	7	
Geography	8	4	
Spelling	9	0	
Total	9	2	

Pupil twenty-six answered his questionnaire:

"I came to trade-school because I thought I could get a good job after I graduated. I don't like homework. I am very interested in the auto repair trade. I don't like women. I wanted to find out what makes a car tick."

Case Study Number Twenty-seven. Pupil twenty-seven was born in January, 1931, and has two siblings. His hobby is gunnery, and he plays no musical instrument. His father is a bus driver.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			94
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	6	2	
Use of index	9	3	
Use of dictionary . . .	5	6	
Reading graphs	7	2	
Total	6	7	
Metropolitan Achievement Test:			
Reading	9	3	
Vocabulary	7	4	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	8	4	
English usage	8	0	
Literature	7	1	
History	8	8	
Geography	8	0	
Spelling	5	9	
Total	7	9	

Pupil twenty-seven left school to work, October 29, 1947. He did not answer the questionnaire.

Case Study Number Twenty-eight. Pupil twenty-eight was born in July, 1931, and he has three siblings. His hobby is swimming and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			91
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	7	7	
Use of index	4	4	
Use of dictionary . . .	4	1	
Reading graphs	7	9	
Total	6	3	
Metropolitan Achievement Test:			
Reading	9	7	
Vocabulary	8	3	
Arithmetic fundamentals	8	2	
Arithmetic problems . .	7	9	
English usage	8	1	
Literature	10	0	
History	9	4	
Geography	10	1	
Spelling	7	8	
Total	8	9	

Pupil twenty-eight answered his questionnaire:

"I came to trade-school because my father and mother wanted me to and I thought I could get a good job after I graduated. The trade-school is just as good as the high-school or any other school. I figured it just as good a place to get my education as any other place."

Case Study Number Twenty-nine. Pupil twenty-nine was born in March, 1933, and he has two siblings. His hobby is sports, and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			108
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	10	8	
Use of index	9	6	
Use of dictionary . . .	9	4	
Reading graphs	8	3	
Total	9	2	
Metropolitan Achievement Test:			
Reading	9	0	
Vocabulary	8	7	
Arithmetic fundamentals	8	6	
Arithmetic problems . .	8	2	
English usage	8	8	
Literature	9	3	
History	10	7	
Geography	9	2	
Spelling	8	3	
Total	9	0	

Pupil twenty-nine answered his questionnaire:

"I came to trade-school because my brother went to trade-school, and so I wanted to. I thought I could get a good job after I graduated. I came to trade-school to mingle in with other fellows, and have the privilege of things that boys that go to high-school can't have."

Case Study Number Thirty. Pupil thirty was born in October, 1931, and has no siblings. His hobby is hunting and he plays no musical instrument. His father is dead.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			93
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	8	9	
Use of index	5	9	
Use of dictionary . . .	7	7	
Reading graphs	7	6	
Total	7	7	
Metropolitan Achievement Test:			
Reading	7	0	
Vocabulary	6	7	
Arithmetic fundamentals	7	9	
Arithmetic problems . .	8	2	
English usage	9	1	
Literature	7	5	
History	7	6	
Geography	8	3	
Spelling	7	1	
Total	7	7	

Pupil thirty left school to join the navy, January 21, 1948. He did not answer the questionnaire.

Case Study Number Thirty-one. Pupil thirty-one was born in December, 1931, and has eleven siblings. His hobby is basketball, and he plays no musical instrument. His father is a machinist.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			89
Iowa Basic Skills Test:			
Map reading	5	4	
Use of references . . .	5	5	
Use of index	5	1	
Use of dictionary . . .	5	9	
Reading graphs	7	6	
Total	5	8	
Metropolitan Achievement Test:			
Reading	8	3	
Vocabulary	6	4	
Arithmetic fundamentals	8	2	
Arithmetic problems . .	9	0	
English usage	8	6	
Literature	7	4	
History	7	1	
Geography	7	2	
Spelling	8	0	
Total	7	8	

Pupil thirty-one was suspended from school, November, 1948. He did not answer his questionnaire.

Case Study Number Thirty-two. Pupil thirty-two was born in November, 1932, and he has nine siblings. His hobby is collecting things, and he plays no musical instrument. His father is dead.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			107
Iowa Basic Skills Test:			
Map reading	6	8	
Use of references . . .	5	1	
Use of index	6	6	
Use of dictionary . . .	8	4	
Reading graphs	8	7	
Total	7	4	
Metropolitan Achievement Test:			
Reading	7	5	
Vocabulary	6	6	
Arithmetic fundamentals	8	4	
Arithmetic problems . .	8	7	
English usage	8	2	
Literature	8	0	
History	9	5	
Geography	9	4	
Spelling	6	6	
Total	8	1	

Pupil thirty-two answered his questionnaire:

"I came to trade-school because I thought I could get a good job after I graduated, and to get away from girls."

Case Study Number Thirty-three. Pupil thirty-three was born in April, 1931, and has five siblings. His hobby is basketball, and he plays no musical instrument. His father is a truck driver.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			99
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	8	4	
Use of index	7	1	
Use of dictionary . . .	8	1	
Reading graphs	7	9	
Total	7	8	
Metropolitan Achievement Test:			
Reading	8	5	
Vocabulary	8	2	
Arithmetic fundamentals	7	0	
Arithmetic problems . .	8	2	
English usage	7	4	
Literature	8	2	
History	9	3	
Geography	9	9	
Spelling	6	5	
Total	7	6	

Pupil thirty-three answered his questionnaire:

"No definite answer."

Case Study Number Thirty-four. Pupil thirty-four was born in November, 1931, and he has one sibling. He has no hobby and plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			105
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	5	1	
Use of index	8	8	
Use of dictionary . . .	6	3	
Reading graphs	6	8	
Total	6	5	
Metropolitan Achievement Test:			
Reading	8	8	
Vocabulary	7	2	
Arithmetic fundamentals	8	6	
Arithmetic problems . .	6	4	
English usage	8	2	
Literature	7	0	
History	7	5	
Geography	8	9	
Spelling	7	7	
Total	7	8	

Pupil thirty-four answered his questionnaire:

"I came to trade-school because my father and mother wanted me to. I like to work with my hands, and I thought I could get a good job after I graduated. I think a person should have a trade to fall back on."

Case Study Number Thirty-five. Pupil thirty-five was born in January, 1932, and he has three siblings. His hobby is stamp collecting, and he plays no musical instrument. His father is a shoe shop worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			92
Iowa Basic Skills Test:			
Map reading	6	8	
Use of references . . .	5	1	
Use of index	4	4	
Use of dictionary . . .	7	1	
Reading graphs	7	6	
Total	6	2	
Metropolitan Achievement Test:			
Reading	7	8	
Vocabulary	7	5	
Arithmetic fundamentals	7	1	
Arithmetic problems . .	7	4	
English usage	7	6	
Literature	7	8	
History	7	5	
Geography	9	0	
Spelling	7	0	
Total	7	6	

Pupil thirty-five answered his questionnaire:

"I came to trade-school because I like to work with my hands. I came to trade-school because I was absent a few months and I thought my I. Q. was low until I saw it was 92. But it was too late to say anything, but now that I'm in trade-school I wouldn't quit for the world."

Case Study Number Thirty-six. Pupil thirty-six was born in February, 1931, and he has one sibling. His hobby is making things, and he plays no musical instrument. His father is a machinist.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			96
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	4	2	
Use of index	7	9	
Use of dictionary . . .	4	1	
Reading graphs	7	9	
Total	6	6	
Metropolitan Achievement Test:			
Reading	6	6	
Vocabulary	7	5	
Arithmetic fundamentals	8	3	
Arithmetic problems . .	9	0	
English usage	7	8	
Literature	7	3	
History	7	4	
Geography	7	6	
Spelling	8	5	
Total	7	8	

Pupil thirty-six answered his questionnaire:

"I came to trade-school because my eighth grade teacher said I should. I like to work with my hands. There was nothing at the high-school that interested me, courses or anything else."

Case Study Number Thirty-seven. Pupil thirty-seven was born in July, 1931, and he has seven siblings. He has no hobby and plays no musical instrument. His father is a shoe shop worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			89
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	4	2	
Use of index	6	6	
Use of dictionary . . .	5	9	
Reading graphs	6	0	
Total	5	6	
Metropolitan Achievement Test:			
Reading	9	5	
Vocabulary	8	0	
Arithmetic fundamentals	6	4	
Arithmetic problems . .	7	4	
English usage	7	8	
Literature	7	7	
History	7	2	
Geography	7	3	
Spelling	7	5	
Total	7	6	

Pupil thirty-seven was expelled from school June 6, 1947. He did not answer the questionnaire.

Case Study Number Thirty-eight. Pupil thirty-eight was born in December, 1930, and has one sibling. His hobby is baseball, and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			89
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	5	5	
Use of index	9	3	
Use of dictionary . . .	6	6	
Reading graphs	8	3	
Total	7	5	
Metropolitan Achievement Test:			
Reading	8	8	
Vocabulary	8	6	
Arithmetic fundamentals	8	8	
Arithmetic problems . .	8	5	
English usage	8	5	
Literature	7	6	
History	10	4	
Geography	10	5	
Spelling	6	6	
Total	8	7	

Pupil thirty-eight left school December 9, 1946, to go to work. He did not answer the questionnaire.

Case Study Number Thirty-nine. Pupil thirty-nine was born in August, 1931, and he has seven siblings. His hobby is auto races and he plays no musical instrument. His father is a tannery worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			93
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	8	4	
Use of index	5	1	
Use of dictionary . . .	6	6	
Reading graphs	9	4	
Total	7	7	
Metropolitan Achievement Test:			
Reading	8	0	
Vocabulary	7	9	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	8	7	
English usage	7	5	
Literature	8	7	
History	8	5	
Geography	9	1	
Spelling	7	8	
Total	8	2	

Pupil thirty-nine left school September 3, 1946, no record where or why. He did not answer the questionnaire.

Case Study Number Forty. Pupil forty was born in November, 1931, and he has five siblings. His hobby is model building, and he plays no musical instruments. His father is dead.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			96
Iowa Basic Skills Test:			
Map reading	6	8	
Use of references . . .	10	3	
Use of index	5	5	
Use of dictionary . . .	9	4	
Reading graphs	8	7	
Total	8	2	
Metropolitan Achievement Test:			
Reading	8	3	
Vocabulary	7	9	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	8	5	
English usage	8	3	
Literature	8	1	
History	7	5	
Geography	8	7	
Spelling	6	7	
Total	8	0	

Pupil forty answered his questionnaire:

"I came to trade-school because I like to work with my hands. Ever since I was about ten years of age, I always liked to fool with cars and work around machines, and so I decided the only place I could learn about these things was trade-school."

Case Study Number Forty-one. Pupil forty-one was born in November 1930, and he has seven siblings. He has no hobby and plays no musical instrument. His father is an elevator operator.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			88
Iowa Basic Skills Test:			
Map reading	5	4	
Use of references . . .	4	7	
Use of index	4	4	
Use of dictionary . . .	4	4	
Reading graphs	8	3	
Total	5	4	
Metropolitan Achievement Test:			
Reading	7	2	
Vocabulary	6	2	
Arithmetic fundamentals	9	1	
Arithmetic problems . .	7	7	
English usage	7	2	
Literature	6	8	
History	7	1	
Geography	7	1	
Spelling	5	8	
Total	7	1	

Pupil forty-one did not report for school September 3, 1947. He did not answer the questionnaire.

Case Study Number Forty-two. Pupil forty-two was born in January, 1931, and he has two siblings. He has no hobby, and he plays no musical instrument. His father is a fireman.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			85
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	5	5	
Use of index	6	6	
Use of dictionary . . .	7	7	
Reading graphs	8	3	
Total	7	4	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	8	0	
Arithmetic fundamentals	7	4	
Arithmetic problems . .	8	3	
English usage	9	1	
Literature	7	4	
History	7	3	
Geography	7	9	
Spelling	7	9	
Total	8	1	

Pupil forty-two answered his questionnaire:

"I came to trade-school because I like to work with my hands, and I was interested in carpentry as a trade to earn a living."

Case Study Number Forty-three. Pupil forty-three was born in February, 1931, and he has two siblings. His hobby is sports, and he plays no musical instrument. His father is a truck driver.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			96
Iowa Basic Skills Test:			
Map reading	11	2	
Use of references . . .	7	7	
Use of index	7	1	
Use of dictionary . . .	5	6	
Reading graphs	7	6	
Total	7	8	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	7	5	
Arithmetic fundamentals	8	0	
Arithmetic problems . .	7	4	
English usage	7	8	
Literature	9	8	
History	8	7	
Geography	10	5	
Spelling	7	7	
Total	8	5	

Pupil forty-three answered his questionnaire:

"I came to trade-school because my eighth grade teacher said I should; I like to work with my hands; I thought I could get a good job after I graduated. Everyone is of the male sex. Because the fellows come from families of the same standard of living. I don't have to wear white collars."

Case Study Number Forty-four. Pupil forty-four was born in March, 1932, and he has one sibling. His hobby is fishing and he plays no musical instrument. His father is a shoe shop worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			95
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	6	2	
Use of index	5	9	
Use of dictionary . . .	5	9	
Reading graphs	5	5	
Total	6	1	
Metropolitan Achievement Test:			
Reading	6	9	
Vocabulary	6	4	
Arithmetic fundamentals	8	2	
Arithmetic problems . .	7	4	
English usage	7	8	
Literature	7	6	
History	8	6	
Geography	10	3	
Spelling	6	1	
Total	7	7	

Pupil forty-four answered his questionnaire:

"I came to trade-school because I like to work with my hands and I thought I could get a good job after I graduated. I don't want to end up working in a shoe shop. This is a good school if you come to learn something, but not if you fool around."

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Case Study Number Forty-five. Pupil forty-five was born in July, 1931, and has no siblings. His hobby is football and he plays no musical instrument. His father and mother are separated and the father's occupation was not recorded.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			86
Iowa Basic Skills Test:			
Map reading	4	3	
Use of references . . .	6	9	
Use of index	7	9	
Use of dictionary . . .	6	6	
Reading graphs	6	4	
Total	6	2	
Metropolitan Achievement Test:			
Reading	8	0	
Vocabulary	7	5	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	6	7	
English usage	7	8	
Literature	9	6	
History	8	4	
Geography	9	1	
Spelling	8	9	
Total	8	2	

Pupil forty-five did not report for school September 8, 1948. He did not answer the questionnaire.

Case Study Number Forty-six. Pupil forty-six was born in January, 1931, and he has three siblings. His hobbies are boxing and football, and he plays the piano. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			85
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	8	9	
Use of index	6	6	
Use of dictionary . . .	8	4	
Reading graphs	8	3	
Total	8	0	
Metropolitan Achievement Test:			
Reading	8	5	
Vocabulary	9	2	
Arithmetic fundamentals	8	2	
Arithmetic problems . .	9	2	
English usage	8	4	
Literature	7	1	
History	7	9	
Geography	9	0	
Spelling	7	1	
Total	8	3	

Pupil forty-six answered his questionnaire:

"I came to trade-school because my eighth grade teacher said I should. I like to work with my hands. I thought I could get a good job after I graduated. I never liked home-work. You can stay out of trouble and get better marks when there are no girls around. I feel more comfortable in overalls than a suit."

Case Study Number Forty-seven. Pupil forty-seven was born in January, 1933, and he has three siblings. His hobby is science and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			113
Iowa Basic Skills Test:			
Map reading	5	4	
Use of references . . .	5	5	
Use of index	7	9	
Use of dictionary . . .	7	1	
Reading graphs	7	2	
Total	6	7	
Metropolitan Achievement Test:			
Reading	9	0	
Vocabulary	7	5	
Arithmetic fundamentals	7	9	
Arithmetic problems . .	6	9	
English usage	8	3	
Literature	7	6	
History	8	4	
Geography	9	1	
Spelling	8	1	
Total	8	1	

Pupil forty-seven answered his questionnaire:

"I came to trade-school because I like to work with my hands and I thought I could get a good job after I graduated. I like to work with other fellows and watch things be made."

Case Study Number Forty-eight. Pupil forty-eight was born in May, 1932, and he has three siblings. His hobby is hunting and he plays no musical instrument. His father is a forest ranger.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			95
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	7	7	
Use of index	8	4	
Use of dictionary . . .	6	3	
Reading graphs	6	8	
Total	7	1	
Metropolitan Achievement Test:			
Reading	7	3	
Vocabulary	6	7	
Arithmetic fundamentals	7	2	
Arithmetic problems . .	7	2	
English usage	7	5	
Literature	7	7	
History	7	6	
Geography	8	3	
Spelling	7	3	
Total	7	4	

Pupil forty-eight answered his questionnaire:

"I came to trade-school because you can take up the trade you like."

Case Study Number Forty-nine. Pupil forty-nine was born in December, 1931, and has seven siblings. His hobby is sports and he plays no musical instrument. His father is a shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			100
Iowa Basic Skills Test:			
Map reading	7	4	
Use of references . . .	7	7	
Use of index	6	6	
Use of dictionary . . .	8	1	
Reading graphs	8	3	
Total	7	6	
Metropolitan Achievement Test:			
Reading	9	3	
Vocabulary	9	0	
Arithmetic fundamentals	8	1	
Arithmetic problems . .	8	7	
English usage	8	6	
Literature	8	8	
History	8	4	
Geography	8	9	
Spelling	8	4	
Total	8	7	

Pupil forty-nine answered his questionnaire:

"I came to trade-school because my brother went to trade-school, and I like to work with my hands. I wish to take up the trade I like."

Case Study Number Fifty. Pupil fifty was born in October, 1929, and has seven siblings. His hobby is collecting stamps and he plays no musical instrument. His father is a painter.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			58
Iowa Basic Skills Test:			
Map reading	5	4	
Use of references . . .	6	2	
Use of index	5	9	
Use of dictionary . . .	5	6	
Reading graphs	6	0	
Total	5	6	
Metropolitan Achievement Test:			
Reading	7	0	
Vocabulary	5	6	
Arithmetic fundamentals	7	1	
Arithmetic problems . .	7	4	
English usage	7	6	
Literature	6	8	
History	7	6	
Geography	8	3	
Spelling	5	0	
Total	6	9	

Pupil fifty was dropped from school March 25, 1947, because he could not do the work. He did not answer the questionnaire.

CHAPTER III

CASE STUDIES OF FIFTY HIGH-SCHOOL NINTH-GRADE BOYS

Introduction. Information about these fifty high-school ninth-grade boys, selected at random, was secured from school standardized test records and a pupil inventory.

High-school inventory. This inventory is filled out by all high-school ninth-grade students. It is kept in their individual folders.

The inventory was developed by the high-school principal and is given to the students by the home room teachers the first week of school. It is used as a source of information about the pupil for individual conferences about conduct and selection of courses.

Inventory

Name in full   home room   date
Home address   city   telephone
Date of birth   place of birth
Entered from what school
Name of mother   birthplace
Name of father   birthplace
What is the chief language spoken in your home?
Are both your parents living?   If not, which is living?
Do you live with your father and mother?   If not, with whom?
Occupation of parents   Employed by
Have you any brothers and sisters?   How many?
Names and ages of brothers and sisters
What schools have you attended?
Have you been promoted regularly?
If not, explain
Do you work after school?   Where?
What is the nature of this work?
Do you intend to finish school?   If not, what are your plans?

In what course are you enrolled?
Do you intend to enter college or normal school? Which?
Did your parents attend or graduate from any school beyond high?
What is your intended vocation?
Are any members of your family engaged in this work?
Have you any physical disabilities?
What do you do for recreation?
Do you play any musical instrument? Which?

The standardized tests used were the Iowa Basic Skills Test, the Metropolitan Achievement Test, and the Kuhlmann-Anderson Intelligence Test.

These tests were given the ninth month of the eignth-grade of school.

Selection of students. The ninth-grade class of the high-school consisted of about 200 boys. The records of both boys and girls were filed in alphabetical order. The author chose every fourth boy for this study.

Case Study Number One. Pupil one was born in October, 1932, and he has one sibling. His hobby is fishing, and he plays no musical instrument. His father's occupation is electrician.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			112
Iowa Basic Skills Test:			
Map reading	11	3	
Use of references . . .	7	7	
Use of index	7	6	
Use of dictionary . . .	9	9	
Reading graphs	9	4	
Total	9	3	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	9	7	
Arithmetic fundamentals	10	0	
Arithmetic problems . .	10	3	
English usage	8	1	
Literature	10	0	
History	9	2	
Geography	8	6	
Spelling	9	6	
Total	9	3	

Case Study Number Two. Pupil two was born in November, 1932, and he has two siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is teacher.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			112
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	7	7	
Use of index	10	2	
Use of dictionary . . .	8	4	
Reading graphs	9	7	
Total	9	1	
Metropolitan Achievement Test:			
Reading	10	0	
Vocabulary	8	7	
Arithmetic fundamentals	9	3	
Arithmetic problems . .	9	6	
English usage	8	1	
Literature	9	2	
History	9	9	
Geography	9	1	
Spelling	9	2	
Total	9	3	

Case Study Number Three. Pupil three was born in September, 1932, and he has one sibling. His hobby is sports, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			114
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	6	2	
Use of index	9	3	
Use of dictionary . . .	8	8	
Reading graphs	8	3	
Total	8	4	
Metropolitan Achievement Test:			
Reading	9	7	
Vocabulary	8	5	
Arithmetic fundamentals	8	7	
Arithmetic problems . .	8	2	
English usage	8	3	
Literature	9	9	
History	10	9	
Geography	10	1	
Spelling	8	5	
Total	9	2	

__Case Study Number Four__. Pupil four was born in February, 1933, and he has three siblings. His hobby is movies, and he plays no musical instrument. His father's occupation is freight yard worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			90
Iowa Basic Skills Test:			
Map reading	9	3	
Use of references	8	4	
Use of index	9	1	
Use of dictionary	6	6	
Reading graphs	7	6	
Total	8	2	
Metropolitan Achievement Test:			
Reading	9	7	
Vocabulary	7	0	
Arithmetic fundamentals	8	8	
Arithmetic problems	8	8	
English usage	8	3	
Literature	7	2	
History	9	1	
Geography	6	3	
Spelling	5	3	
Total	7	8	

Case Study Number Five. Pupil five was born in November, 1931, and he has two siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			102
Iowa Basic Skills Test:			
Map reading	5	4	
Use of references . . .	6	9	
Use of index	8	4	
Use of dictionary . . .	6	3	
Reading graphs	8	3	
Total	7	2	
Metropolitan Achievement Test:			
Reading	8	8	
Vocabulary	7	9	
Arithmetic fundamentals	8	8	
Arithmetic problems . .	8	8	
English usage	8	1	
Literature	8	8	
History	8	5	
Geography	8	7	
Spelling	6	9	
Total	8	4	

Case Study Number Six. Pupil six was born in December, 1934, and he has one sibling. His hobby is sports, and he plays the piano. His father's occupation is auto dealer.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			130
Iowa Basic Skills Test:			
Map reading	10	1	
Use of references . . .	8	9	
Use of index	9	8	
Use of dictionary . . .	10	4	
Reading graphs	10	8	
Total	10	2	
Metropolitan Achievement Test:			
Reading	11	4	
Vocabulary	10	2	
Arithmetic fundamentals	9	2	
Arithmetic problems . .	10	8	
English usage	9	0	
Literature	10	7	
History	12	0	
Geography	10	3	
Spelling	10	1	
Total	10	4	

Case Study Number Seven. Pupil seven was born in September, 1932, and he has no siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			103
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references	4	7	
Use of index	6	6	
Use of dictionary	8	4	
Reading graphs	8	7	
Total	7	5	
Metropolitan Achievement Test:			
Reading	7	2	
Vocabulary	7	0	
Arithmetic fundamentals	9	7	
Arithmetic problems	10	0	
English usage	7	7	
Literature	7	7	
History	8	2	
Geography	7	7	
Spelling	6	8	
Total	8	0	

Case Study Number Eight. Pupil eight was born in March, 1932, and he has two siblings. His hobby is football, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			101
Iowa Basic Skills Test:			
Map reading	10	8	
Use of references . . .	5	5	
Use of index	8	8	
Use of dictionary . . .	8	8	
Reading graphs	10	8	
Total	9	2	
Metropolitan Achievement Test:			
Reading	8	7	
Vocabulary	7	5	
Arithmetic fundamentals	9	5	
Arithmetic problems . .	9	6	
English usage	8	8	
Literature	8	2	
History	7	9	
Geography	8	6	
Spelling	8	8	
Total	8	6	

Case Study Number Nine. Pupil nine was born in June, 1932, and he has no siblings. His hobby is sports, and he plays the piano. His father's occupation is fireman.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			111
Iowa Basic Skills Test:			
Map reading	11	5	
Use of references . . .	9	3	
Use of index	9	8	
Use of dictionary . . .	11	1	
Reading graphs	10	8	
Total	10	9	
Metropolitan Achievement Test:			
Reading	11	0	
Vocabulary	9	5	
Arithmetic fundamentals	10	3	
Arithmetic problems . .	10	8	
English usage	9	3	
Literature	11	2	
History	10	4	
Geography	11	8	
Spelling	9	5	
Total	10	4	

Case Study Number Ten. Pupil ten was born in October, 1931, and he has four siblings. His hobby is model planes, and he plays no musical instrument. His father's occupation is machinist.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			108
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	4	2	
Use of index	6	6	
Use of dictionary . . .	5	6	
Reading graphs	8	3	
Total	6	6	
Metropolitan Achievement Test:			
Reading	10	0	
Vocabulary	8	7	
Arithmetic fundamentals	9	0	
Arithmetic problems . .	8	0	
English usage	8	3	
Literature	9	9	
History	10	4	
Geography	9	7	
Spelling	8	4	
Total	9	2	

Case Study Number Eleven. Pupil eleven was born in April, 1932, and he has no siblings. His hobby is movies, and he plays the accordian. His father is dead.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			113
Iowa Basic Skills Test:			
Map reading	9	7	
Use of references . . .	10	3	
Use of index	9	3	
Use of dictionary . . .	8	1	
Reading graphs	9	4	
Total	9	4	
Metropolitan Achievement Test:			
Reading	10	0	
Vocabulary	9	0	
Arithmetic fundamentals	9	7	
Arithmetic problems . .	10	3	
English usage	9	1	
Literature	10	4	
History	10	4	
Geography	10	0	
Spelling	8	6	
Total	9	7	

Case Study Number Twelve. Pupil twelve was born in June, 1931, and he has three siblings. His hobby is football, and he plays the piano. His father's occupation is truck driver.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			98
Iowa Basic Skills Test:			
Map reading	6	8	
Use of references . . .	8	9	
Use of index	9	1	
Use of dictionary . . .	8	1	
Reading graphs	9	7	
Total	8	7	
Metropolitan Achievement Test:			
Reading	8	0	
Vocabulary	8	6	
Arithmetic fundamentals	9	5	
Arithmetic problems . .	10	1	
English usage	7	6	
Literature	10	0	
History	9	0	
Geography	8	6	
Spelling	7	0	
Total	8	7	

Case Study Number Thirteen. Pupil thirteen was born in May, 1932, and he has one sibling. His hobby is sports, and he plays the saxaphone. His father's occupation is carpenter.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test;			117
Iowa Basic Skills Test:			
Map reading	11	2	
Use of references . . .	10	3	
Use of index	9	1	
Use of dictionary . . .	11	2	
Reading graphs	10	3	
Total	9	9	
Metropolitan Achievement Test:			
Reading	10	0	
Vocabulary	8	2	
Arithmetic fundamentals	10	2	
Arithmetic problems . .	9	3	
English usage	10	2	
Literature	9	8	
History	8	0	
Geography	9	9	
Spelling	9	2	
Total	9	4	

Case Study Number Fourteen. Pupil fourteen was born in November, 1932, and he has four siblings. His hobby is athletics, and he plays no musical instrument. His father is retired.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test;			103
Iowa Basic Skills Test:			
Map reading	7	4	
Use of references . . .	6	2	
Use of index	7	1	
Use of dictionary . . .	5	9	
Reading graphs	9	0	
Total	7	3	
Metropolitan Achievement Test:			
Reading	8	7	
Vocabulary	8	5	
Arithmetic fundamentals	7	6	
Arithmetic problems . .	8	5	
English usage	8	1	
Literature	8	7	
History	8	5	
Geography	8	3	
Spelling	8	4	
Total	8	4	

Case Study Number Fifteen. Pupil fifteen was born in April, 1932, and he has no siblings. His hobby is bicycling, and he plays the trombone. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			95
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	10	8	
Use of index	8	4	
Use of dictionary . . .	8	4	
Reading graphs	9	0	
Total	9	1	
Metropolitan Achievement Test:			
Reading	10	0	
Vocabulary	8	6	
Arithmetic fundamentals	8	4	
Arithmetic problems . .	8	7	
English usage	8	4	
Literature	9	2	
History	9	5	
Geography	9	4	
Spelling	8	9	
Total	9	0	

Case Study Number Sixteen. Pupil sixteen was born in October, 1932, and he has two siblings. His hobby is reading, and he plays the piano. His father's occupation is teacher.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			101
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	5	5	
Use of index	5	9	
Use of dictionary . . .	8	8	
Reading graphs	7	9	
Total	7	5	
Metropolitan Achievement Test:			
Reading	10	0	
Vocabulary	10	1	
Arithmetic fundamentals	8	7	
Arithmetic problems . .	9	2	
English usage	8	6	
Literature	11	3	
History	9	1	
Geography	10	1	
Spelling	8	9	
Total	9	6	

Case Study Number Seventeen. Pupil seventeen was born in October, 1932, and he has five siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			99
Iowa Basic Skills Test:			
Map reading	7	4	
Use of references . . .	7	7	
Use of index	8	4	
Use of dictionary . . .	9	4	
Reading graphs	6	8	
Total	7	9	
Metropolitan Achievement Test:			
Reading	9	5	
Vocabulary	8	5	
Arithmetic fundamentals	7	4	
Arithmetic problems . .	6	7	
English usage	8	2	
Literature	9	5	
History	9	9	
Geography	8	7	
Spelling	7	5	
Total	8	4	

Case Study Number Eighteen. Pupil eighteen was born in August, 1931, and he has five siblings. His hobby is football, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			99
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	8	4	
Use of index	9	6	
Use of dictionary . . .	8	8	
Reading graphs	9	7	
Total	9	2	
Metropolitan Achievement Test:			
Reading	9	3	
Vocabulary	10	5	
Arithmetic fundamentals	8	3	
Arithmetic problems ...	9	5	
English usage	8	2	
Literature	10	3	
History	9	7	
Geography	9	2	
Spelling	6	1	
Total	9	0	

Case Study Number Nineteen. Pupil nineteen was born in March, 1933, and he has one sibling. His hobby is making model homes, and he plays the piano. His father's occupation is foreman.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			127
Iowa Basic Skills Test:			
Map reading	11	4	
Use of references . . .	9	8	
Use of index	10	2	
Use of dictionary . . .	9	9	
Reading graphs	10	3	
Total	10	7	
Metropolitan Achievement Test:			
Reading	9	9	
Vocabulary	9	6	
Arithmetic fundamentals	10	3	
Arithmetic problems . .	10	4	
English usage	8	5	
Literature	9	8	
History	10	7	
Geography	11	3	
Spelling	9	6	
Total	10	0	

Case Study Number Twenty. Pupil twenty was born in July, 1932, and he has three siblings. His hobby is sports, and he plays the piano. His father's occupation is merchant.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			103
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	8	9	
Use of index	8	8	
Use of dictionary . . .	8	1	
Reading graphs	9	7	
Total	8	9	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	8	8	
Arithmetic fundamentals	8	4	
Arithmetic problems . .	6	6	
English usage	8	4	
Literature	9	3	
History	8	0	
Geography	8	1	
Spelling	8	9	
Total	8	4	

Case Study Number Twenty-one. Pupil twenty-one was born in August, 1932, and he has no siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			103
Iowa Basic Skills Test:			
Map reading	7	4	
Use of references . . .	8	9	
Use of index	7	6	
Use of dictionary . . .	8	4	
Reading graphs	8	3	
Total	8	1	
Metropolitan Achievement Test:			
Reading	9	5	
Vocabulary	8	7	
Arithmetic fundamentals	8	9	
Arithmetic problems . .	8	7	
English usage	8	9	
Literature	9	6	
History	10	0	
Geography	8	9	
Spelling	9	5	
Total	9	2	

Case Study Number Twenty-two. Pupil twenty-two was born in January, 1931, and he has four siblings. His hobby is midget auto races and he plays the drum. His father's occupation is at Western Electric.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			87
Iowa Basic Skills Test:			
Map reading	6	8	
Use of references . . .	6	9	
Use of index	6	6	
Use of dictionary . . .	7	7	
Reading graphs	7	2	
Total	7	1	
Metropolitan Achievement Test:			
Reading	6	4	
Vocabulary	6	9	
Arithmetic fundamentals	6	6	
Arithmetic problems . .	7	6	
English usage	7	7	
Literature	9	2	
History	7	9	
Geography	8	3	
Spelling	7	7	
Total	7	5	

Case Study Number Twenty-three. Pupil twenty-three was born in February, 1932, and he has one sibling. His hobby is sports, and he plays the piano. His father's occupation is barber.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			95
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	6	2	
Use of index	5	9	
Use of dictionary . . .	5	6	
Reading graphs	6	0	
Total	5	8	
Metropolitan Achievement Test:			
Reading	8	1	
Vocabulary	8	8	
Arithmetic fundamentals	7	5	
Arithmetic problems . .	6	9	
English usage	8	4	
Literature	8	6	
History	9	0	
Geography	8	3	
Spelling	9	7	
Total	8	4	

Case Study Number Twenty-four. Pupil twenty-four was born in December, 1932, and has no siblings. His hobby is sports and he plays no musical instrument. His father's occupation is funeral director.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			104
Iowa Basic Skills Test:			
Map reading	9	7	
Use of references . . .	9	3	
Use of index	9	3	
Use of dictionary . . .	8	4	
Reading graphs	10	8	
Total	9	6	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	8	8	
Arithmetic fundamentals	9	2	
Arithmetic problems . .	9	2	
English usage	8	0	
Literature	9	1	
History	9	3	
Geography	10	4	
Spelling	8	6	
Total	9	1	

Case Study Number Twenty-five. Pupil twenty-five was born in September, 1932, and he has no siblings. His hobby is hunting and he plays no musical instrument. His father's occupation is in the shoe business.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			98
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references	6	2	
Use of index	7	9	
Use of dictionary	6	6	
Reading graphs	9	7	
Total	8	1	
Metropolitan Achievement Test:			
Reading	9	7	
Vocabulary	8	5	
Arithmetic fundamentals	8	6	
Arithmetic problems	8	0	
English usage	8	6	
Literature	8	8	
History	9	2	
Geography	9	2	
Spelling	8	7	
Total	8	8	

Case Study Number Twenty-six. Pupil twenty-six was born in March, 1932, and he has five siblings. His hobby is in theatre works, and he plays no musical instrument. His father's occupation is store manager.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			97
Iowa Basic Skills Test:			
Map reading	10	1	
Use of references . . .	8	4	
Use of index	9	6	
Use of dictionary . . .	9	9	
Reading graphs	9	7	
Total	9	7	
Metropolitan Achievement Test:			
Reading	8	1	
Vocabulary	8	3	
Arithmetic fundamentals	8	1	
Arithmetic problems . .	8	5	
English usage	8	3	
Literature	9	4	
History	7	9	
Geography	8	6	
Spelling	9	7	
Total	8	6	

Case Study Number Twenty-seven. Pupil twenty-seven was born in August, 1932, and he has three siblings. His hobby is tennis, and he plays no musical instrument. His father's occupation is counter manager.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			110
Iowa Basic Skills Test:			
Map reading	10	8	
Use of references . . .	6	2	
Use of index	9	1	
Use of dictionary . . .	9	9	
Reading graphs	8	7	
Total	9	1	
Metropolitan Achievement Test:			
Reading	10	8	
Vocabulary	9	6	
Arithmetic fundamentals	9	7	
Arithmetic problems . .	10	1	
English usage	8	7	
Literature	10	9	
History	9	6	
Geography	10	0	
Spelling	10	1	
Total	9	9	

Case Study Number Twenty-eight. Pupil twenty-eight was born in June, 1931, and he has eight siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is truck driver.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			103
Iowa Basic Skills Test:			
Map reading	5	8	
Use of references . . .	9	3	
Use of index	7	6	
Use of dictionary . . .	6	3	
Reading graphs	7	2	
Total	7	2	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	7	3	
Arithmetic fundamentals	8	1	
Arithmetic problems . .	7	4	
English usage	8	0	
Literature	9	9	
History	9	7	
Geography	9	2	
Spelling	8	1	
Total	7	8	

Case Study Number Twenty-nine. Pupil twenty-nine was born in April, 1932, and he has three siblings. His hobby is sports and he plays no musical instrument. His father's occupation is clerk.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			100
Iowa Basic Skills Test:			
Map reading	5	8	
Use of references . . .	6	2	
Use of index	7	6	
Use of dictionary . . .	9	9	
Reading graphs	8	3	
Total	7	7	
Metropolitan Achievement Test:			
Reading	9	5	
Vocabulary	8	9	
Arithmetic fundamentals	8	0	
Arithmetic problems . .	7	5	
English usage	8	3	
Literature	9	1	
History	8	9	
Geography	9	1	
Spelling	8	6	
Total	8	7	

Case Study Number Thirty. Pupil thirty was born in December, 1931, and he has three siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is insurance salesman.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			106
Iowa Basic Skills Test:			
Map reading	9	7	
Use of references . . .	7	7	
Use of index	10	9	
Use of dictionary . . .	11	6	
Reading graphs	10	3	
Total	10	5	
Metropolitan Achievement Test:			
Reading	10	6	
Vocabulary	9	3	
Arithmetic fundamentals	10	3	
Arithmetic problems . .	10	4	
English usage	8	8	
Literature	9	4	
History	11	2	
Geography	10	3	
Spelling	8	9	
Total	9	9	

Case Study Number Thirty-one. Pupil thirty-one was born in May, 1932, and he has two siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			113
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references	5	5	
Use of index	9	1	
Use of dictionary	4	4	
Reading graphs	4	6	
Total	7	5	
Metropolitan Achievement Test:			
Reading	7	5	
Vocabulary	7	6	
Arithmetic fundamentals	9	2	
Arithmetic problems	8	4	
English usage	9	1	
Literature	7	5	
History	8	0	
Geography	9	0	
Spelling	8	7	
Total	8	3	

Case Study Number Thirty-two. Pupil thirty-two was born in May, 1933, and he has three siblings. He has no hobby, and he plays no musical instrument. His father's occupation is shoe manufacturer.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			134
Iowa Basic Skills Test:			
Map reading	10	1	
Use of references . . .	8	9	
Use of index	7	9	
Use of dictionary . . .	10	4	
Reading graphs	10	3	
Total	9	5	
Metropolitan Achievement Test:			
Reading	9	9	
Vocabulary	8	8	
Arithmetic fundamentals	9	2	
Arithmetic problems . .	10	0	
English usage	9	3	
Literature	10	6	
History	10	4	
Geography	10	0	
Spelling	10	1	
Total	9	8	

Case Study Number Thirty-three. Pupil thirty-three was born in June, 1932, and he has four siblings. His hobby is football, and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			103
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	9	3	
Use of index	7	9	
Use of dictionary . . .	9	4	
Reading graphs	10	8	
Total	9	2	
Metropolitan Achievement Test:			
Reading	8	3	
Vocabulary	7	8	
Arithmetic fundamentals	9	5	
Arithmetic problems . .	8	8	
English usage	8	2	
Literature	8	6	
History	9	1	
Geography	9	0	
Spelling	5	9	
Total	8	4	

Case Study Number Thirty-four. Pupil thirty-four was born in October, 1930, and he has twelve siblings. His hobby is bowling and he plays no musical instrument. His father's occupation is in the shoe shop.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			93
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	5	1	
Use of index	4	4	
Use of dictionary . . .	6	3	
Reading graphs	6	8	
Total	6	1	
Metropolitan Achievement Test:			
Reading	8	5	
Vocabulary	7	9	
Arithmetic fundamentals	8	7	
Arithmetic problems . .	9	8	
English usage	8	9	
Literature	8	2	
History	7	2	
Geography	9	6	
Spelling	8	4	
Total	8	6	

Case Study Number Thirty-five. Pupil thirty-five was born in June, 1932, and he has one sibling. His hobby is music and he plays the piano. His father's occupation is laundry owner.

So far as test data are concerned, the following facts are available:

Source of Test Data:	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			117
Iowa Basic Skills Test:			
Map reading	10	1	
Use of references . . .	9	8	
Use of index	9	3	
Use of dictionary . . .	11	2	
Reading graphs	9	7	
Total	10	3	
Metropolitan Achievement Test:			
Reading	10	2	
Vocabulary	10	4	
Arithmetic fundamentals	8	8	
Arithmetic problems . .	9	0	
English usage	9	8	
Literature	10	6	
History	11	4	
Geography	10	5	
Spelling	8	9	
Total	10	0	

Case Study Number Thirty-six. Pupil thirty-six was born in October, 1932, and he has no siblings. His hobby is swimming, and he plays the piano. He lives with his grandmother.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			121
Iowa Basic Skills Test:			
Map reading	8	6	
Use of references . . .	10	8	
Use of index	9	1	
Use of dictionary . . .	11	1	
Reading graphs	9	0	
Total	9	7	
Metropolitan Achievement Test:			
Reading	10	0	
Vocabulary	10	0	
Arithmetic fundamentals	8	8	
Arithmetic problems . .	8	0	
English usage	9	3	
Literature	11	2	
History	10	5	
Geography	8	9	
Spelling	8	8	
Total	9	5	

Case Study Number Thirty-seven. Pupil thirty-seven was born in January, 1933, and he has three siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is machinist.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			111
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	8	4	
Use of index	7	9	
Use of dictionary . . .	8	4	
Reading graphs	8	3	
Total	8	4	
Metropolitan Achievement Test:			
Reading	9	5	
Vocabulary	8	2	
Arithmetic fundamentals	8	3	
Arithmetic problems . .	8	7	
English usage	8	7	
Literature	7	8	
History	9	7	
Geography	10	1	
Spelling	8	8	
Total	8	2	

Case Study Number Thirty-eight. Pupil thirty-eight was born in September, 1931, and he has one sibling. His hobby is sports, and he plays no musical instrument. His father's occupation is soap manufacturer.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			91
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	5	1	
Use of index	7	1	
Use of dictionary . . .	6	3	
Reading graphs	7	2	
Total	6	7	
Metropolitan Achievement Test:			
Reading	7	7	
Vocabulary	8	0	
Arithmetic fundamentals	7	0	
Arithmetic problems . .	7	9	
English usage	8	3	
Literature	9	1	
History	8	4	
Geography	9	0	
Spelling	6	6	
Total	8	0	

Case Study Number Thirty-nine. Pupil thirty-nine was born in April, 1932, and he has two siblings. His hobby is sports, and he plays the piano. His father's occupation is tanner.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			94
Iowa Basic Skills Test:			
Map reading	6	3	
Use of references . . .	7	7	
Use of index	5	5	
Use of dictionary . . .	5	9	
Reading graphs	6	0	
Total	6	0	
Metropolitan Achievement Test:			
Reading	7	4	
Vocabulary	8	1	
Arithmetic fundamentals	5	8	
Arithmetic problems . .	6	7	
English usage	7	8	
Literature	7	8	
History	7	5	
Geography	8	3	
Spelling	6	6	
Total	7	3	

Case Study Number Forty. Pupil forty was born in April, 1933, and he has one sibling. His hobby is reading, and he plays the cornet. His father's occupation is teacher.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			131
Iowa Basic Skills Test:			
Map reading	11	2	
Use of references	11	1	
Use of index	10	9	
Use of dictionary	5	9	
Reading graphs	9	4	
Total	10	0	
Metropolitan Achievement Test:			
Reading	10	8	
Vocabulary	11	2	
Arithmetic fundamentals	10	3	
Arithmetic problems	10	9	
English usage	10	1	
Literature	12	0	
History	11	8	
Geography	10	8	
Spelling	10	8	
Total	11	0	

Case Study Number Forty-one. Pupil forty-one was born in May, 1932, and he has one sibling. His hobby is reading, and he plays no musical instrument. His father's occupation is steam fitter.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			117
Iowa Basic Skills Test:			
Map reading	10	1	
Use of references . . .	8	9	
Use of index	9	6	
Use of dictionary . . .	8	1	
Reading graphs	9	7	
Total	9	4	
Metropolitan Achievement Test:			
Reading	10	6	
Vocabulary	9	6	
Arithmetic fundamentals	8	9	
Arithmetic problems . .	9	6	
English usage	8	3	
Literature	11	8	
History	10	9	
Geography	9	2	
Spelling	8	2	
Total	9	7	

__Case Study Number Forty-two.__ Pupil forty-two was born in August, 1933, and he has one sibling. His hobby is sports, and he plays the piano. His father's occupation is manager of boy's department.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			107
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	6	9	
Use of index	9	8	
Use of dictionary . . .	7	1	
Reading graphs	10	3	
Total	9	0	
Metropolitan Achievement Test:			
Reading	9	5	
Vocabulary	7	8	
Arithmetic fundamentals	9	7	
Arithmetic problems . .	8	8	
English usage	8	9	
Literature	8	8	
History	9	7	
Geography	8	9	
Spelling	9	2	
Total	9	0	

Case Study Number Forty-three. Pupil forty-three was born in April, 1932, and he has three siblings. His hobby is sports, and he plays no musical instrument. His father's occupation is shoe company agent.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			101
Iowa Basic Skills Test:			
Map reading	4	3	
Use of references . . .	6	2	
Use of index	3	4	
Use of dictionary . . .	5	0	
Reading graphs	7	9	
Total	5	2	
Metropolitan Achievement Test:			
Reading	7	8	
Vocabulary	7	8	
Arithmetic fundamentals	7	7	
Arithmetic problems . .	7	7	
English usage	8	4	
Literature	7	4	
History	8	4	
Geography	8	6	
Spelling	6	4	
Total	7	8	

Case Study Number Forty-four. Pupil forty-four was born in July, 1931, and he has two siblings. His hobby is sports, and he plays the piano. His father's occupation is shoe foreman.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			102
Iowa Basic Skills Test:			
Map reading	5	8	
Use of references	7	7	
Use of index	9	6	
Use of dictionary	8	8	
Reading graphs	9	0	
Total	8	5	
Metropolitan Achievement Test:			
Reading	9	3	
Vocabulary	8	9	
Arithmetic fundamentals	8	7	
Arithmetic problems	9	3	
English usage	8	6	
Literature	9	4	
History	9	5	
Geography	8	9	
Spelling	9	9	
Total	9	2	

Case Study Number Forty-five. Pupil forty-five was born in November, 1932, and he has two siblings. His hobby is building model planes, and he plays no musical instrument. His father's occupation is surveyor.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			135
Iowa Basic Skills Test:			
Map reading	11	8	
Use of references . . .	10	3	
Use of index	10	9	
Use of dictionary . . .	10	4	
Reading graphs	10	8	
Total	11	2	
Metropolitan Achievement Test:			
Reading	11	6	
Vocabulary	10	5	
Arithmetic fundamentals	10	5	
Arithmetic problems . .	11	1	
English usage	10	2	
Literature	11	7	
History	12	0	
Geography	12	0	
Spelling	9	6	
Total	11	0	

Case Study Number Forty-six. Pupil forty-six was born in May, 1932, and he has three siblings. His hobby is basketball, and he plays no musical instrument. His father's occupation is ice and oil distributor.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent grade year	Grade Equivalent month	Intelligence Quotient
Kuhlmann-Anderson Intelligence Test:			91
Iowa Basic Skills Test:			
Map reading	9	0	
Use of references . . .	5	5	
Use of index	7	1	
Use of dictionary . . .	8	1	
Reading graphs	6	8	
Total	7	4	
Metropolitan Achievement Test:			
Reading	9	2	
Vocabulary	7	1	
Arithmetic fundamentals	7	6	
Arithmetic problems . .	8	8	
English usage	9	1	
Literature	9	6	
History	8	3	
Geography	7	5	
Spelling	8	3	
Total	8	4	

Case Study Number Forty-seven. Pupil forty-seven was born in August, 1932, and he has two siblings. His hobby is model planes, and he plays the accordian. His father's occupation is Post Office clerk.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			108
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	6	9	
Use of index	7	1	
Use of dictionary . . .	8	8	
Reading graphs	11	9	
Total	8	4	
Metropolitan Achievement Test:			
Reading	9	7	
Vocabulary	8	8	
Arithmetic fundamentals	8	9	
Arithmetic problems . .	9	8	
English usage	8	4	
Literature	8	2	
History	8	7	
Geography	8	9	
Spelling	8	8	
Total	8	9	

Case Study Number Forty-eight. Pupil forty-eight was born in April, 1932, and he has three siblings. His hobby is baseball, and he plays no musical instrument. His father's occupation is tannery worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			98
Iowa Basic Skills Test:			
Map reading	8	0	
Use of references . . .	6	2	
Use of index	7	9	
Use of dictionary . . .	9	9	
Reading graphs	8	7	
Total	8	3	
Metropolitan Achievement Test:			
Reading	10	4	
Vocabulary	9	0	
Arithmetic fundamentals	7	1	
Arithmetic problems . .	7	9	
English usage	8	8	
Literature	9	5	
History	10	0	
Geography	9	3	
Spelling	8	3	
Total	8	9	

Case Study Number Forty-nine. Pupil forty-nine was born in July, 1932, and he has two siblings. His hobby is sports, and he plays the violin. His father's occupation is shoe worker.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			89
Iowa Basic Skills Test:			
Map reading	5	8	
Use of references . . .	5	5	
Use of index	8	8	
Use of dictionary . . .	6	6	
Reading graphs	6	8	
Total	6	8	
Metropolitan Achievement Test:			
Reading	7	7	
Vocabulary	6	9	
Arithmetic fundamentals	7	0	
Arithmetic problems . .	5	7	
English usage	7	7	
Literature	7	3	
History	9	4	
Geography	8	4	
Spelling	7	5	
Total	7	5	

Case Study Number Fifty. Pupil fifty was born in August, 1931, and he has two siblings. His hobby is football, and he plays no musical instrument. His father's occupation is painter.

So far as test data are concerned, the following facts are available:

Source of Test Data	Grade Equivalent		Intelligence Quotient
	grade year	month	
Kuhlmann-Anderson Intelligence Test:			90
Iowa Basic Skills Test:			
Map reading	6	8	
Use of references . . .	8	9	
Use of index	5	9	
Use of dictionary . . .	6	6	
Reading graphs	8	7	
Total	7	5	
Metropolitan Achievement Test:			
Reading	9	3	
Vocabulary	7	4	
Arithmetic fundamentals	8	9	
Arithmetic problems . .	9	6	
English usage	8	6	
Literature	8	2	
History	7	1	
Geography	9	9	
Spelling	8	2	
Total	8	6	

CHAPTER IV

COMPARATIVE CHARTS AND GRAPHS

Introduction. These standardized test scores are recorded on pupil testing record sheets. The tests were given throughout the school system by the grade teachers under the direction of the elementary supervisor. They were given to provide a means of comparing the students of Haverhill with those in other parts of the country and to show in which subjects the Haverhill students excelled or were retarded as a city and by individual schools.

Occupations of fathers. The most frequent occupations of the fathers are: shoe worker, business owner, tradesman, and truck driver. (Table I.)

Table I. Occupations of Fathers of Ninth-Grade Students.

Occupation	High-School		Trade-School	
	number	per cent	number	per cent
(1)	(2)	(3)	(4)	(5)
Tradesman	9	18	12	24
Teacher	3	6	0	0
Foreman	2	4	0	0
Agent	2	4	0	0
Business owner . .	9	18	2	4
Manager	2	4	0	0
Clerk	2	4	0	0
Western Electric .	1	2	0	0
Retired	1	2	0	0
Fireman	1	2	1	2
Freight yard . . .	1	2	0	0
Shoeshop worker .	13	26	18	36
Truck driver . . .	2	4	5	10

Table I. (concluded)

Occupation	High-School		Trade-School	
	number	per cent	number	per cent
(1)	(2)	(3)	(4)	(5)
Laborer	0	0	2	4
Ordinance worker	0	0	1	2
Watchman	0	0	1	2
Deceased	1	2	5	10
Bus driver . . .	0	0	1	2
Forest ranger . .	0	0	1	2
No record	1	2	1	2

Eighteen per cent of the fathers of high-school students own their businesses while only four per cent of the trade-school students' fathers own their businesses. The chances are 68 in 100 that the true percentage of trade-school fathers who own their businesses lies between one per cent and seven per cent. The chances are 68 in 100 that between 16 per cent and 20 per cent of the high-school fathers own their businesses. The chances are 57 in 100 that more high-school fathers will own their business than trade-school fathers.

Twenty-six per cent of the high-school fathers work in shoe shops, while 36 per cent of the trade-school fathers are employed in this manner. The chances are 68 in 100 that the true percentage of trade-school fathers who work in the shoe shops is between 29 per cent and 43 per cent. The chances are 68 in 100 that the true percentage of high-school fathers who work in shoe shops is between 20 per cent and 32 per cent. The chances are 76 in 100 that more trade-school fathers than high-school

fathers will work in shoe shops.

Only two per cent of the high-school ninth-grade fathers are deceased compared to ten per cent of the trade-school fathers. The chances are 68 in 100 that the true percentage of trade-school fathers deceased lies between six per cent and 14 per cent. The chances are 68 in 100 that the true percentage of high-school fathers who are deceased lies between zero and four per cent. The chances are 87 in 100 that more trade-school boys' fathers than high-school boys' fathers are deceased.

Brothers and sisters of students. The average ninth-grade high-school student has 2.3 brothers and sisters; the average trade-school ninth-grade student has four brothers and sisters, nearly twice as many.

Table II. Number of Brothers and Sisters of Ninth-Grade Students.

Number	High-School		Trade-School	
(1)	number (2)	per cent (3)	number (4)	per cent (5)
12	1	2	0	0
11	0	0	1	2
10	0	0	0	0
9	0	0	2	4
8	1	2	2	4
7	0	0	7	14
6	0	0	1	2
5	3	6	5	10
4	4	8	6	12
3	11	22	10	20
2	11	22	8	16
1	11	22	5	10
0	8	16	3	6

Sixty per cent of the high-school ninth-grade students live in families with not more than two siblings. Only 32 per cent of the trade-school ninth-grade students live in families with two or less siblings. The chances are 68 in 100 that the true percentage of trade-school boys living in families with two or less siblings lies between 25 per cent and 39 per cent. The chances are 68 in 100 that the true percentage of high-school boys living in families with two or less siblings lies between 53 per cent and 67 per cent.

The chances are 997 out of 1,000 that more high-school boys than trade-school boys live in families with not more than two siblings. Four per cent of the high-school students have more than five siblings while 26 per cent of the trade-school students have more than five siblings. Six per cent of the trade-school ninth-grade students have no brothers or sisters; sixteen per cent of the high-school ninth-grade students have no brothers or sisters.

Birth dates of students. The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school ages by more than 1.3 months and of the high-school true mean by more than 1.0 months.

The central year for the birth date of the ninth-grade trade-school students is 1931, the eighth month with a standard deviation of 8.9 months. The central year for the high-school ninth-grade students is 1932, the fifth month,

with a standard deviation of 7.3 months. The average age for the trade-school ninth-grade students is 15 years, one month. The average age for high-school ninth-grade students is 14 years, four months. The ninth-grade trade-school students are, on the average, one year and three months older than the ninth-grade high-school students. (Figure 1.)

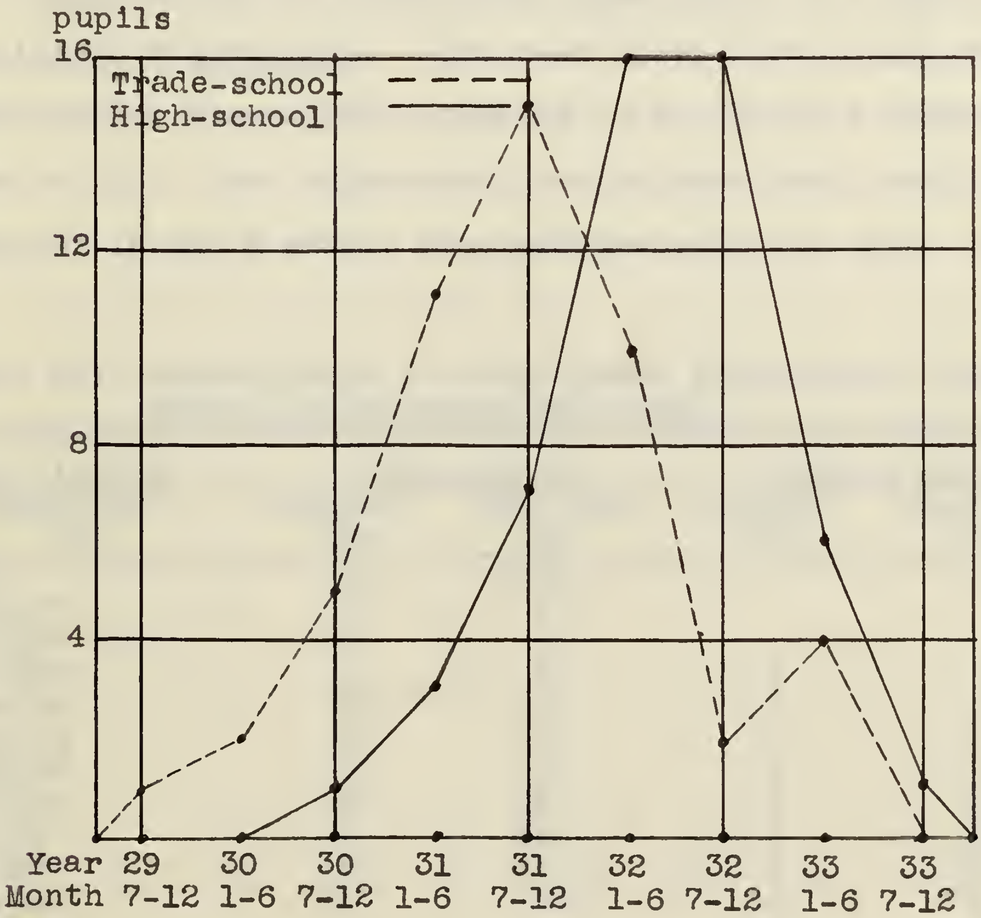

Figure 1. Ninth-grade High-school and Trade-school Birth Dates.

The chances are 997 out of 1,000 that the average trade-school ninth-grade student will be older than the average high-school ninth-grade student.

Of the trade-school students, 36 per cent were born in the later half of 1931. Most of the high-school students in the ninth-grade were born in 1932.

Distribution of ninth-grade high-school and trade-school intelligence-quotients. The mean intelligence quotient for trade-school ninth-grade students is 96.2 with a standard deviation of 9.7. The high-school ninth-grade mean intelligence-quotient is 105.8 with a standard deviation of 10.0. (Table III.)

Table III. Distribution of Ninth-grade Trade-school and High-school Intelligence-Quotients.

Intelligence Quotient (1)	High-school Number (2)	High-school Per cent (3)	Trade-school Number (4)	Trade-school Per cent (5)
135	1	2		
130-134	3	6		
125-129	1	2		
120-124	1	2	2	4
115-119	3	6	1	2
110-114	8	16	3	6
105-109	4	8	3	6
100-104	13	26	8	16
95-99	8	16	8	16
90-94	6	12	9	18
85-89	2	4	14	28
80-84			2	4

The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school intelligence-quotients by more than 1.2. The chances are 68 in 100 that the obtained mean does not differ from the true mean of the

high-school intelligence-quotients by more than 1.4.

The chances are 997 in 1,000 that the high-school intelligence-quotients will be higher than the trade-school intelligence-quotients.

Sixty-six per cent of the high-school ninth-grade students have above normal intelligence-quotients while 32 per cent tested below 100 and one tested 100.

The greatest number of high-school students' intelligence-quotients, 26 per cent, is in the 100 to 104 group with the greatest number of trade-school intelligence-quotients, 28 per cent, in the 85 to 89 group. (Figure 2, Page 117.)

Metropolitan Achievement Test, total scores. The mean score for the trade-school ninth-grade students on the Metropolitan Achievement Test, total scores, is grade 8.1 with a standard deviation of .2. The high-school ninth-grade mean score on the same test is grade 8.8 with a standard deviation of .9. (Table IV, Page 118).

The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school Metropolitan Achievement Test total scores by more than .02 grades, and of the high-school true mean by more than .12 grades.

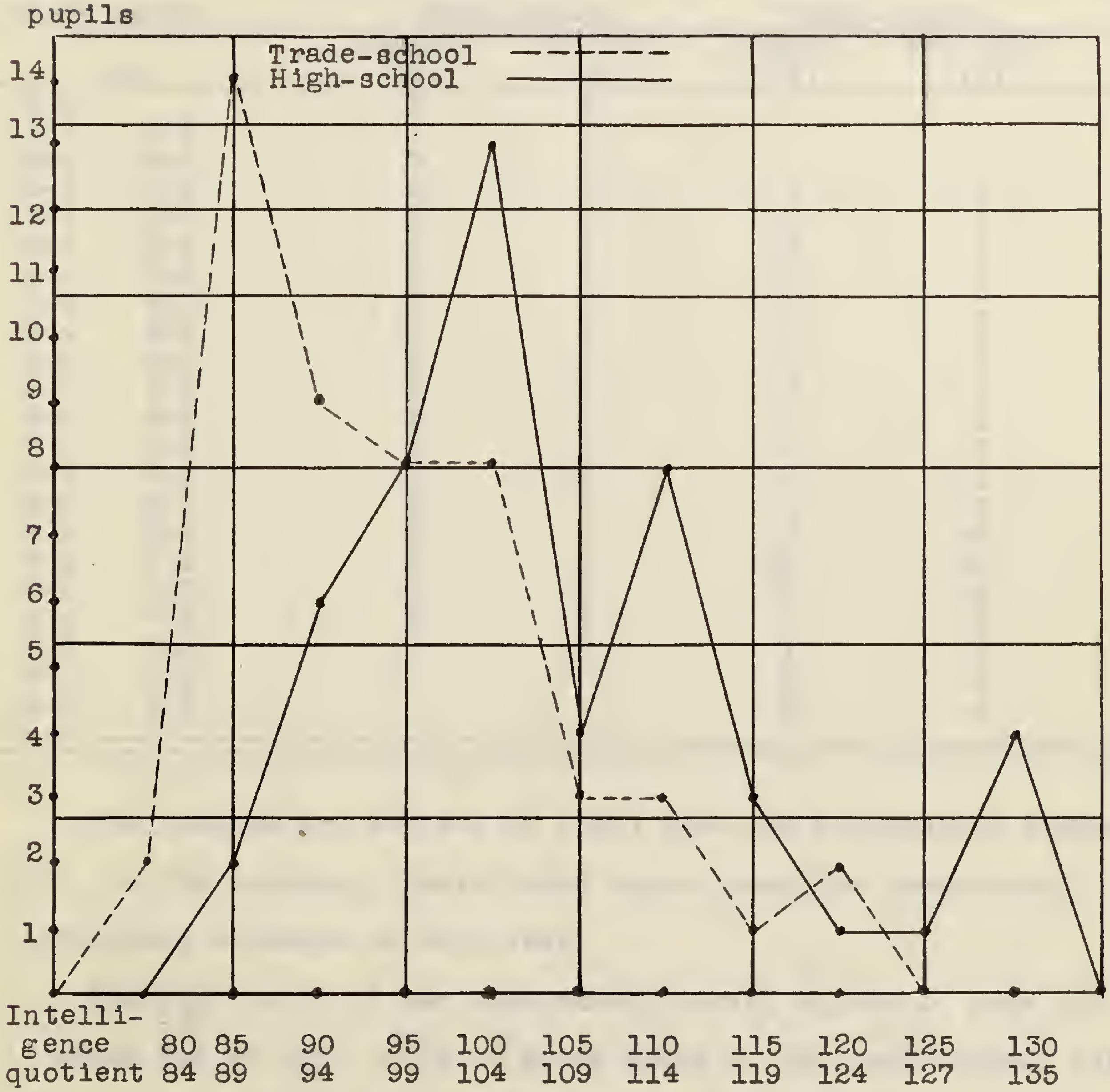

Figure 2. Ninth-grade, high-school and trade-school intelligence-quotients.

Table IV. Distribution of Metropolitan Achievement Test, Total Scores.

Grade Level (1)		High-school Number (2)	High-school Per cent (3)	Trade-school Number (4)	Trade-school Per cent (5)
11-0		2	4		
10-8	10-9	0	0		
10-6	10-7	0	0		
10-4	10-5	2	4	1	2
10-2	10-3	0	0	0	0
10-0	10-1	2	4	0	0
9-8	9-9	3	6	0	0
9-6	9-7	3	6	0	0
9-4	9-5	2	4	0	0
9-2	9-3	6	12	1	2
9-0	9-1	4	8	3	6
8-8	8-9	3	6	1	2
8-6	8-7	6	12	4	8
8-4	8-5	7	14	4	8
8-2	8-3	2	4	4	8
8-0	8-1	2	4	7	14
7-8	7-9	3	6	10	20
7-6	7-7	0	0	7	14
7-4	7-5	2	4	3	6
7-2	7-3	1	2	1	2
7-0	7-1			2	4
6-8	6-9			2	4

The chances are 997 out of 1,000 that the high-school students will, on the average, always score higher than the trade-school ninth-grade students on this test.

The high point of the high-school curve, Figure 3, page 119, is grade 8.5 to 8.9, one full grade ahead of the trade-school high point on Metropolitan Achievement Test, total scores.

Average reading scores. The mean score for the trade-school ninth-grade students on the average reading scores of the Metro-

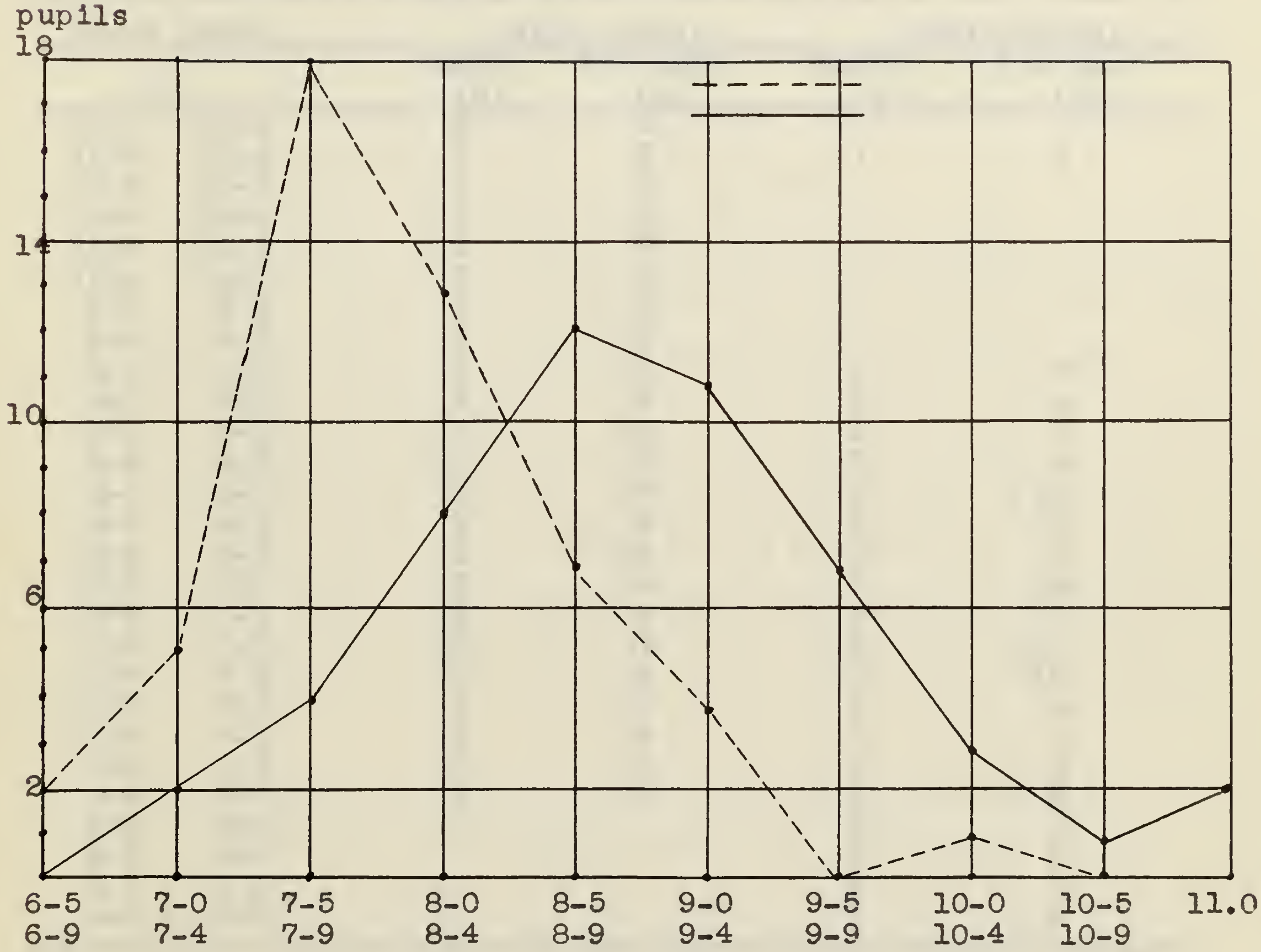

Figure 3. Ninth-grade, high-school and trade-school Metropolitan Achievement Test Total Scores.

politan Achievement Test is grade 8.0 with a standard deviation of .9. The high-school ninth-grade mean score on the same test is grade 9.4 with a standard deviation of 1.0. (Table V.)

Table V. Distribution of Ninth-grade High-school and Trade-School Average Reading Scores.

Grade Level		High-School		Trade-school	
(1)		Number (2)	Per cent (3)	Number (4)	Per cent (5)
11-0	11-1	2	4		
10-8	10-9	1	2	1	2
10-6	10-7	0	0		
10-4	10-5	0	0		
10-2	10-3	3	6		
10-0	10-1	3	6		
9-8	9-9	3	6		
9-6	9-7	1	2		
9-4	9-5	4	8	1	2
9-2	9-3	4	8	2	4
9-0	9-1	8	16	3	6
8-8	8-9	1	2	2	4
8-6	8-7	2	4	5	10
8-4	8-5	4	8	3	6
8-2	8-3	5	10	4	8
8-0	8-1	2	4	7	14
7-8	7-9	3	6	0	0
7-6	7-7	0	0	5	10
7-4	7-5	1	2	5	10
7-2	7-3	1	2	2	4
7-0	7-1	1	2	3	6
6-8	6-9	0	0	3	6
6-6	6-7	1	2	2	4
6-4	6-5			0	0
6-2	6-3			1	2
6-0	6-1			0	0
5-8	5-9			1	2

The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school ninth-grade average reading scores by more than .13 grades. The chances are 68 in 100 that the obtained mean does not differ from the true mean of the high-school ninth-grade average reading scores by more than .14 grades.

The chances are 997 in 1,000 that the high-school students, will on the average, always score higher than the trade-school ninth-grade students on this reading test.

Fourteen per cent of the trade-school ninth-grade students have average reading scores above grade level while 58 per cent of the high-school ninth-grade students scored above grade level. (Table V, Page 120.)

The greatest number of high-school ninth-grade students, 18 per cent, scored in the grade 9.0 to 9.4 group on the reading tests. In the trade-school group, the greatest number, 24 per cent, scored in the grade 7.5 to 7.9 group (Figure 4, Page 122.)

The average reading scores of the trade-school ninth-grade students are more centered than the high-school scores.

Literature scores. The mean score for the trade-school ninth-grade students on the literature test is grade 8.1 with a standard deviation of .9. The high-school ninth-grade mean score is grade 9.4 with a standard deviation of 1.2.

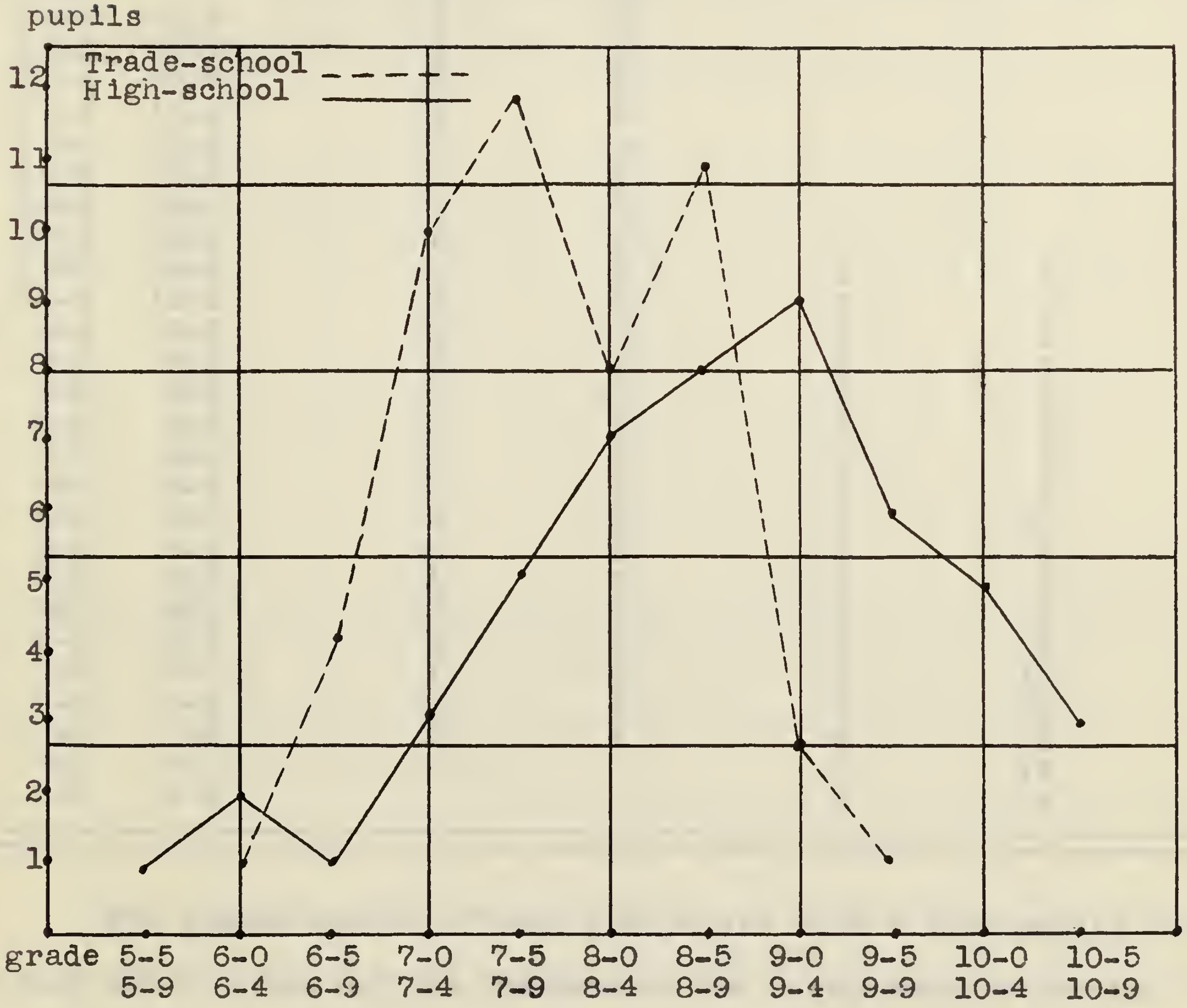

Figure 4. Ninth-grade high-school and trade-school average reading scores.

Table VI. Distribution of Ninth-grade High-school and Trade-school Literature Scores.

Grade Level (1)		High-school Number (2)	High-school Per cent (3)	Trade-school Number (4)	Trade-school Per cent (5)
12-0		1	2		
11-8	11-9	1	2		
11-6	11-7	1	2		
11-4	11-5	0	0		
11-2	11-3	3	6		
11-0	11-1	0	0		
10-8	10-9	1	2		
10-6	10-7	3	6		
10-4	10-5	1	2		
10-2	10-3	1	2	1	2
10-0	10-1	2	4	2	4
9-8	9-9	5	10	1	2
9-6	9-7	2	4	1	2
9-4	9-5	5	10	0	0
9-2	9-3	4	8	4	8
9-0	9-1	3	6	0	0
8-8	8-9	3	6	2	4
8-6	8-7	3	6	5	10
8-4	8-5	0	0	2	4
8-2	8-3	4	8	3	6
8-0	8-1	0	0	3	6
7-8	7-9	2	4	2	4
7-6	7-7	1	2	6	12
7-4	7-5	2	4	5	10
7-2	7-3	2	4	4	8
7-0	7-1			7	14
6-8	6-9			2	4

The lowest scores of both groups are within four months of each other. However, 24 per cent of the high-school students scored above the tenth-grade in literature but only two per cent of the trade-school students scored above grade ten in literature. (Figure 5, Page 124.)

Twenty-six per cent of the high-school students are located below grade level. Seventy-eight per cent of the trade-school

students tested below grade level on the literature test.

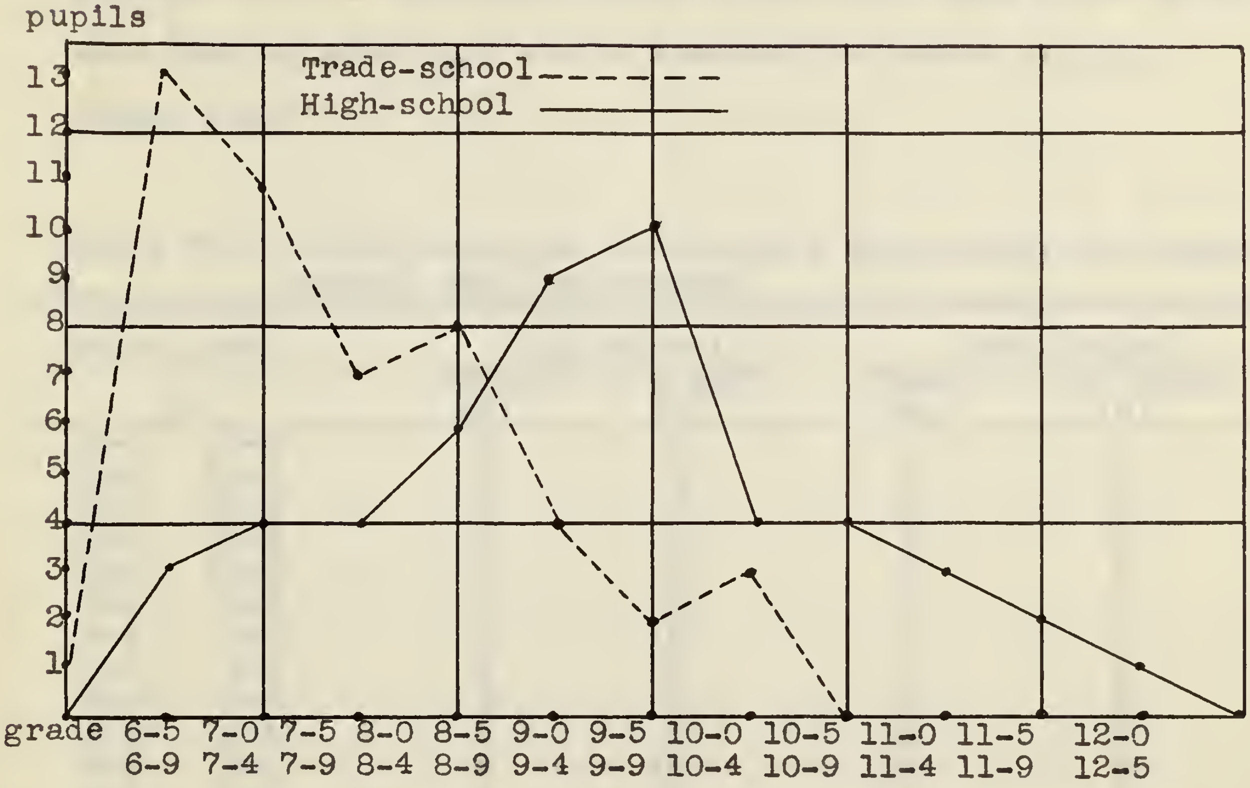

Figure 5. Ninth-grade high-school and trade-school students' literature scores.

The distribution of high-school ninth-grade literature scores is nearly normal; whereas, the trade-school scores are much lower on the scale.

The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school ninth-grade literature scores by more than .2 grades, and of the high-school true mean by .2 grades.

Spelling. The mean score for the trade-school ninth-grade students on the spelling test is grade 7.8 with a standard deviation of 1.2. The high-school ninth-grade mean score on the same test is grade 8.5 with a standard deviation of 1.2. (Table VII.)

Table VII. Distribution of Ninth-grade High-school and Trade-school Spelling Scores.

Grade Level		High-School		Trade-School	
(1)		Number (2)	Per cent (3)	Number (4)	Per cent (5)
10-8	10-9	1	2		
10-6	10-7	0	0	1	2
10-4	10-5	0	0	1	2
10-2	10-3	0	0	0	0
10-0	10-1	3	6	0	0
9-8	9-9	1	2	0	0
9-6	9-7	5	10	0	0
9-4	9-5	2	4	1	2
9-2	9-3	3	6	1	2
9-0	9-1	0	0	2	4
8-8	8-9	9	18	2	4
8-6	8-7	5	10	1	2
8-4	8-5	4	8	3	6
8-2	8-3	4	8	1	2
8-0	8-1	1	2	3	6
7-8	7-9	0	0	8	16
7-6	7-7	1	2	5	10
7-4	7-5	2	4	1	2
7-2	7-3	0	0	3	6
7-0	7-1	1	2	5	10
6-8	6-9	2	4	1	2
6-6	6-7	2	4	4	8
6-4	6-5	1	2	2	4
6-2	6-3	0	0	0	0
6-0	6-1	1	2	2	4
5-8	5-9	1	2	2	4
5-6	5-7	0	0	0	0
5-4	5-5	0	0	1	2
5-2	5-3	1	2	1	2
5-0	5-1	0	0	1	2

The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school spelling scores by more than .2 grades. The chances are 68 in 100 that the obtained mean does not differ from the true mean of the high-school spelling scores by more than .2 grades.

The chances are 997 in 1,000 that the high-school students will, on the average, always score higher than the trade-school ninth-grade students on the spelling test.

Twelve per cent of the trade-school ninth-grade students have spelling scores above grade level, Table VII, Page 125, while 30 per cent of the high-school ninth-grade students scored above grade level.

The range of the spelling scores for both groups is nearly the same. The high points of the graph curves in Figure 6, Page 127, are one grade apart with the largest number of trade-school students' scores in the grade 7.5 to 7.9 group, and the largest number of high-school students' scores in the grade 8.5 to 8.9 group.

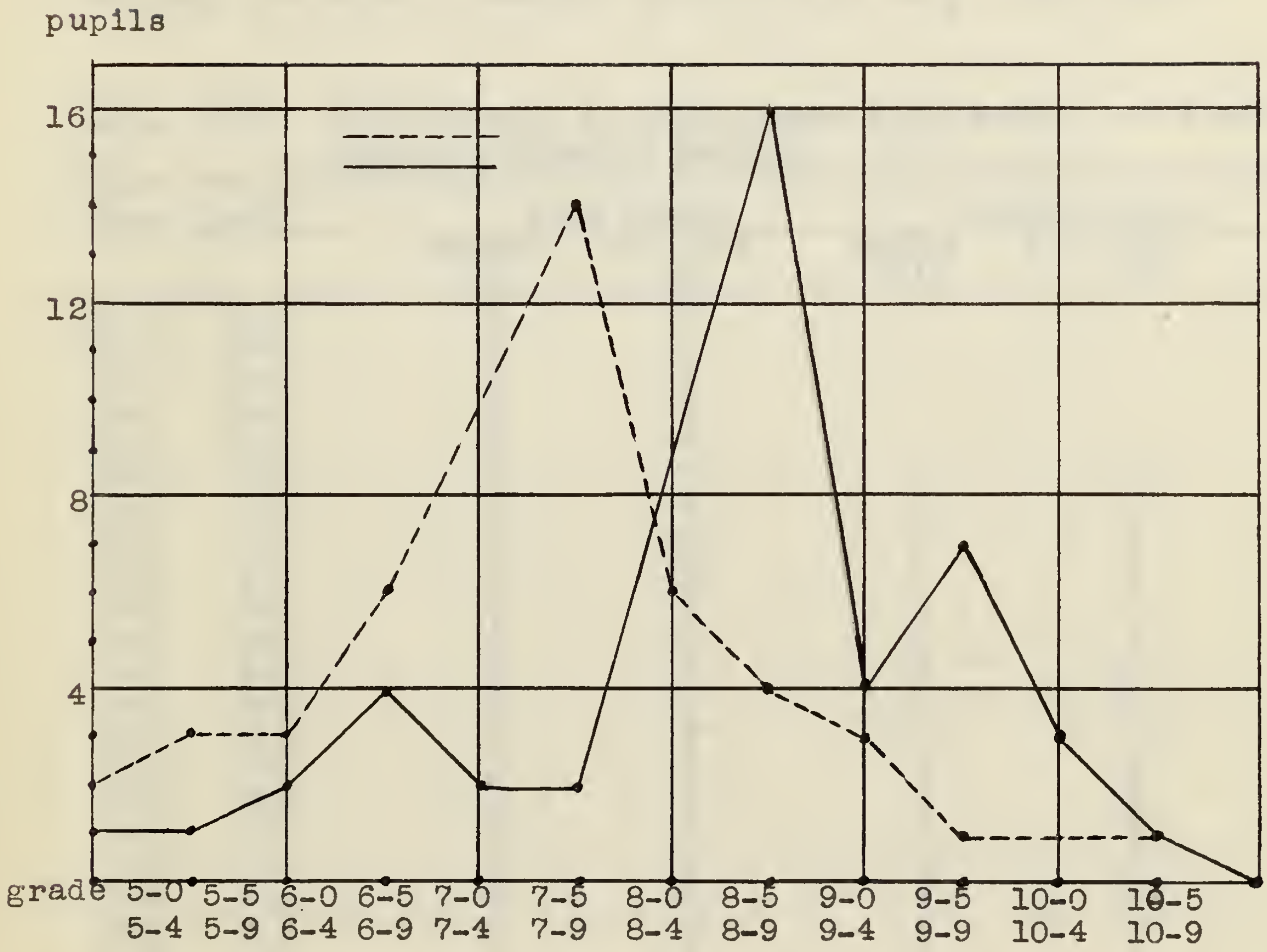

Figure 6. Ninth-grade, high-school and trade-school spelling scores.

Arithmetic scores. The mean score of the trade-school ninth-grade students on the arithmetic section of the Metropolitan Achievement Test is grade 7.9 with a standard deviation of .7. The high-school ninth-grade mean score on the same test is grade 8.8 with a standard deviation of 1.1. (Table VIII.)

Table VIII. Distribution of Ninth-grade High-school and Trade-school Arithmetic Scores.

Grade Level		High School		Trade-School	
(1)		Number (2)	Per cent (3)	Number (4)	Per cent (5)
10-8	10-9	1	2		
10-6	10-7	2	4		
10-4	10-5	1	2		
10-2	10-3	2	4		
10-0	10-1	2	4		
9-8	9-9	3	6	1	2
9-6	9-7	2	4	0	0
9-4	9-5	3	6	1	2
9-2	9-3	5	10	1	2
9-0	9-1	2	4	1	2
8-8	8-9	5	10	0	0
8-6	8-7	0	0	8	16
8-4	8-5	6	12	5	10
8-2	8-3	3	6	2	4
8-0	8-1	1	2	4	8
7-8	7-9	2	4	6	12
7-6	7-7	1	2	5	10
7-4	7-5	3	6	3	6
7-2	7-3	1	2	6	12
7-0	7-1	1	2	2	4
6-8	6-9	1	2	2	4
6-6	6-7	0	0	2	4
6-4	6-5	1	2	0	0
6-2	6-3	1	2	1	2
6-0	6-1	0	0		
5-8	5-9	1	2		

The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school ninth-grade arithmetic scores by more than .7 grades and of the high-school ninth-grade arithmetic scores by more than .2 grades.

The chances are 997 out of 1,000 that the high-school ninth-grade students will, on the average, always score higher than the trade-school students on the arithmetic test.

Eight per cent of the trade-school ninth-grade students have arithmetic scores above grade level while 46 per cent of the high-school ninth-grade students scored above grade level. (Table VIII, Page 128.) Sixteen per cent of the high-school students scored above grade 9.9 while this was the highest point for the trade-school students. The lowest score of grade 5.8 was made by a high-school student.

The curve of the trade-school students' scores on the arithmetic test has less range than the curve of the high-school scores. (Figure 7, Page 130.)

The greatest percentage of trade-school students in any one group is the grade 7.5 to 7.9 group, with 24 per cent of the students. The high-school high point is grade 9.0 to 9.4 with 18 per cent of the students.

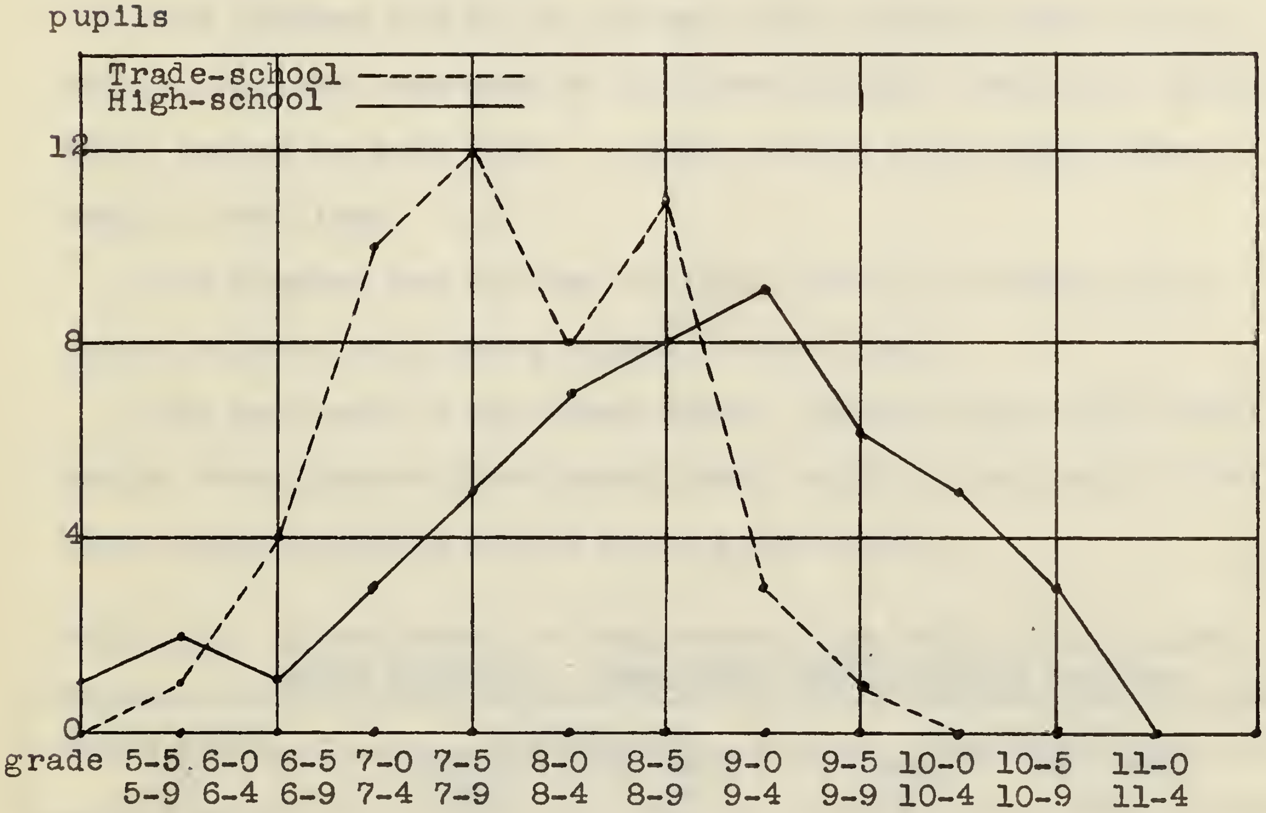

Figure 7. Ninth-grade, high-school and trade-school students' arithmetic scores.

Iowa Basic Skills Total Scores. The mean score for the trade-school ninth-grade students on the Iowa Basic Skills Test Total Scores is grade 7.1 with a standard deviation of 1.1. The high-school ninth-grade mean score on the same test is grade 8.5 with a standard deviation of 1.4.

The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school Iowa Basic Skills Total Scores by more than .2 and of the high-school true mean by more than .2.

The chances are 997 out of 1,000 that the average high-school student will score higher on this test.

Ten per cent of the trade-school students have Iowa Basic Skills Total Scores above grade level while 44 per cent of the high-school students scored above grade level.

Table IX. Distribution of High-school and Trade-school Ninth-grade Students' Iowa Basic Skills Total Scores.

Grade Level		High-School		Trade-School	
(1)		Number (2)	Per cent (3)	Number (4)	Per cent (5)
11-2	11-3	1	2		
11-0	11-1	0	0		
10-8	10-9	1	2		
10-6	10-7	1	2		
10-4	10-5	1	2		
10-2	10-3	2	4		
10-0	10-1	1	2		
9-8	9-9	1	2		
9-6	9-7	3	6	1	2
9-4	9-5	3	6	1	2
9-2	9-3	4	8	1	2
9-0	9-1	4	8	2	4
8-8	8-9	1	2	1	2
8-6	8-7	1	2	0	0

Table IX. (concluded)

Grade Level (1)		High-School Number (2)	High-School Per cent (3)	Trade-School Number (4)	Trade-School Per cent (5)
8-4	8-5	4	8	0	0
8-2	8-3	2	4	1	2
8-0	8-1	2	4	1	2
7-8	7-9	1	2	3	6
7-6	7-7	1	2	6	12
7-4	7-5	5	10	4	8
7-2	7-3	3	6	1	2
7-0	7-1	1	2	4	8
6-8	6-9	1	2	0	0
6-6	6-7	2	4	6	12
6-4	6-5	0	0	3	6
6-2	6-3	0	0	4	8
6-0	6-1	2	4	2	4
5-8	5-9	1	2	2	4
5-6	5-7	0	0	5	10
5-4	5-5	0	0	1	2
5-2	5-3	1	2	0	0
5-0	5-1	0	0	0	0
4-8	4-9			1	2

The high point of the high-school line graph is Group grade 9.0 to 9.4. The high point of the trade-school basic skills scores is Group grade 7.5 to 7.9. (Figure 8, Page 133.)

Use of the dictionary. The mean score for the trade-school ninth-grade students on the test evaluating the use of the dictionary is grade 7.2 with a standard deviation of 1.6. The high-school ninth-grade mean score on the same test is grade 8.2 with a standard deviation of 1.8. (Table X, Page 134)

The chances are 68 in 100 that the obtained mean does not differ from the true mean of the trade-school use of the dictionary scores by more than .2 grades and of the true mean of the high-school ninth-grade scores by more than .3 grades.

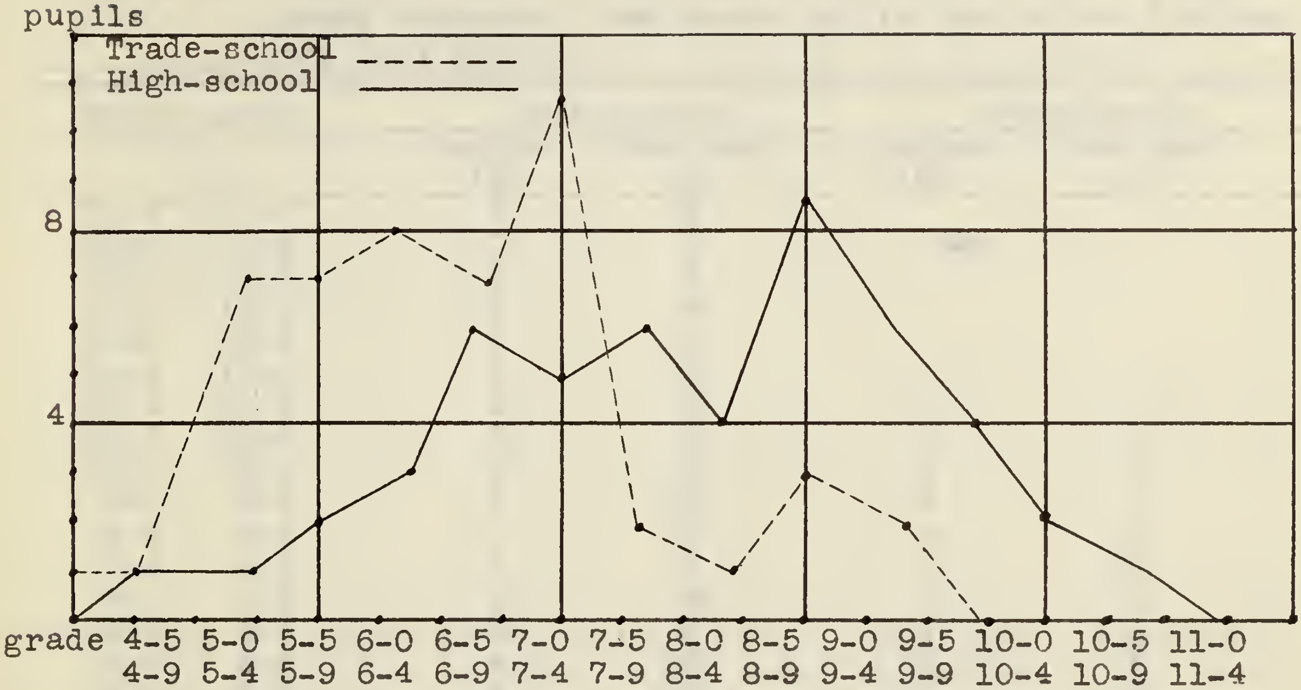

Figure 8. Ninth-grade high-school and trade-school Iowa Basic Skills Total Scores.

The chances are 998 out of 1,000 that the high-school students, on the average, will always score above the trade-school students on the use of the dictionary test.

Sixteen per cent of the trade-school students have scores above grade level while 30 per cent of the high-school ninth-grade boys have above grade level scores. Ten per cent of the high-school boys scored above grade 10.7 while no trade-school boys scored above this grade level. (Table X, Page 134.)

Table X. Distribution of High-school and Trade-school Ninth-grade Students' Iowa Basic Skills Use of the Dictionary Test Scores.

Grade Level		High-school		Trade-school	
(1)		Number (2)	Per cent (3)	Number (4)	Per cent (5)
11-6	11-7	1	2		
11-4	11-5	0	0		
11-2	11-3	2	4		
11-0	11-1	2	4		
10-8	10-9	0	0		
10-6	10-7	0	0		
10-4	10-5	2	4	1	2
10-2	10-3	0	0	0	0
10-0	10-1	0	0	0	0
9-8	9-9	6	12	2	4
9-6	9-7	0	0	0	0
9-4	9-5	2	4	5	10
9-2	9-3	0	0	0	0
9-0	9-1	0	0	0	0
8-8	8-9	6	12	2	4
8-6	8-7	0	0	0	0
8-4	8-5	6	12	3	6
8-2	8-3	0	0	0	0
8-0	8-1	5	10	3	6
7-8	7-9	0	0	0	0
7-6	7-7	1	2	7	14
7-4	7-5	0	0	0	0
7-2	7-3	0	0	0	0
7-0	7-1	1	2	7	14
6-8	6-9	0	0	0	0
6-6	6-7	4	8	4	8
6-4	6-5	1	2	0	0
6-2	6-3	4	8	2	4
6-0	6-1	0	0	0	0
5-8	5-9	3	6	5	10
5-6	5-7	2	4	4	8
5-4	5-5	0	0	0	0
5-2	5-3	0	0	0	0
5-0	5-1	1	2	0	0
4-8	4-9	0	0	0	0
4-6	4-7	0	0	0	0
4-4	4-5	1	2	1	2
4-2	4-3			0	0
4-0	4-1			4	8

The high point for number of students in one grade group of trade-school students is grade 5.5 to 5.9 on the use of the dictionary scores. The high-school high point for number of students in one group is grade 8.5 to 8.9. (Figure 9.)

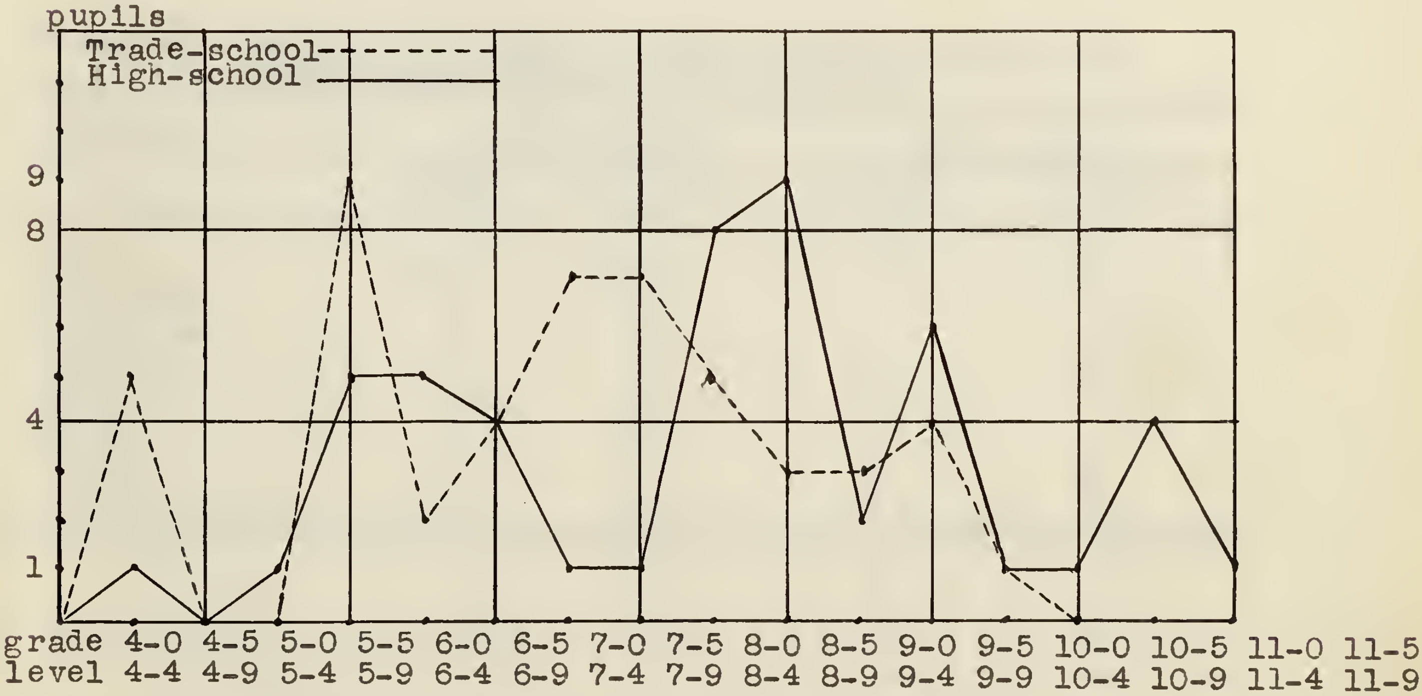

Figure 9. Ninth-grade high-school and trade-school Iowa Basic Skills Use of the Dictionary Scores.

Musical Instruments played. A total of four of fifty students of the trade-school ninth-grade play musical instruments. Eighteen of the high-school group indicated that they played musical instruments, with 12 of these playing the piano. (Table XI, Page 136.)

Eight per cent of the trade-school ninth-grade students play a musical instrument. Thirty-six per cent of the high-school ninth-grade students play a musical instrument.

Table XI. Musical Instruments Played by High-School and Trade-School Ninth-grade Students.

Instrument	High-school		Trade-school	
	Number	Per cent	Number	Per cent
(1)	(2)	(3)	(4)	(5)
Piano	12	24	2	4
Accordian	2	4		
Saxophone	1	2		
Trombone	1	2	1	2
Drum	1	2		
Cornet	1	2		
Guitar			1	2
Total	18	36	4	8

Summary

All of the eight mean scores given in Table XII show the high-school boys with a higher mean score than that of the trade-school ninth-grade boys.

Table XII. Mean Scores and Standard Deviations of Test Results.

Test Name	High-School		Trade-School	
(1)	Mean (2)	Standard Deviation (3)	Mean (4)	Standard Deviation (5)
Kuhlmann-Anderson Intelligence . . .	105.8	10.0	96.2	9.7
Metropolitan Achievement . . .	(grade)			
Total Scores . .	8.7	.9	8.1	.2
Average Reading	9.4	1.0	8.0	.9
Literature . . .	9.4	1.2	8.1	.9
Spelling	8.5	1.2	7.8	1.2
Arithmetic . . .	8.8	1.2	7.9	.7
Iowa Basic Skills				
Total Scores . .	8.5	1.4	7.1	1.1
Use of the Dictionary . .	8.2	1.8	7.2	1.6

__Brothers and sisters__. Trade-school ninth-grade students come from larger families than do those ninth-grade students in the high-school.

__Father's occupation__. The fathers of the trade-school ninth-grade students are engaged in lower income occupations.

__Reasons for attending trade-school__. The 26 trade-school students who answered the questionnaire gave the following

reasons for attending trade-school:

18 students: I like to work with my hands.
16 students: I thought I could get a good job after I graduated.
4 students: My eighth-grade teacher said I should.
3 students: To get away from girls.
3 students: My father and mother wanted me to go to trade-school.

Age. Trade-school ninth-grade students are, on the average, ten months older than high-school ninth-grade students.

Intelligence quotients. The average high-school intelligence quotient is 9.6 points higher than the average trade-school ninth-grade intelligence score.

Metropolitan Achievement Test Total Scores. The high-school average score is seven months ahead of the trade-school average score.

Average reading scores. The average high-school ninth-grade students' reading score is 14 months ahead of the average trade-school ninth-grade reading score.

Literature. Trade-school ninth-grade students, on the average, scored one year and four months behind the high-school ninth-grade students.

Iowa Basic Skills Total Scores. The average for the entire city is about one year below the national norm.

The trade-school average score on this test is nearly one and one half years below that of the high-school average.

Use of the dictionary. The average score of the trade-school ninth-grade students is a year below the average score

of the high-school ninth-grade students.

Musical instruments. Only four of the trade-school ninth-grade group of students play musical instruments. Eighteen of the high-school ninth-grade group of students play musical instruments.

CONCLUSIONS

This study shows that the trade-school ninth-grade boys are from families nearly twice as large as the high-school ninth-grade boys' families; that the trade-school fathers are employed in lower income occupations than the high-school fathers.

The second most important reason given by the trade-school boys for attending the school is to get a good job after they have graduated.

This suggests that most trade-school boys need a paying job as soon as possible. They cannot afford, or think they cannot afford, to go to high-school four years and then attend college before being able to contribute to the family income.

It further suggests that a reorganized high-school program of studies, including rich programs of practical arts and business studies, would make unnecessary the present early choice at the grade nine level. It is unfortunate that the issue of high-school and trade-school is that of college or non-college on the one hand, and a matter of economics rather

than what is educationally best for the student, on the other.

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